

# Doing More with Less

## Best Practices for Processes, People and Metrics

By Bob Zimmerman

### Introduction

There are many points in time when an organization becomes unaware of (or even overlooks) inefficiencies in team performance. Typically, this happens because their focus is on the value generated by team innovation... rather than on operational efficiencies. This is especially true in a growth economy.

Whether the goal of innovation is to introduce breakthrough capabilities or new ways to reduce costs, in a growing economy, organizations have less pressure to make their organizations as optimized as possible. However, innovation may actually introduce habits that obstruct your teams' ability to be as efficient as possible.

As the economy slows, this lack of optimum performance will inevitably become a top concern.

During the 2001 downturn, interviews with over two dozen CIOs clearly revealed a surprising trend about the challenges keeping them up at night. While several shared issues relating to the adoption of new technologies, budget cuts, outsource costs, maintenance agreements, and keeping the best talent, the prevailing concern among almost everyone interviewed was: *Am I getting the best RPM out of my team?*

In other words, are there obstacles that prevent my team from performing like the Ferrari of IT teams... the epitome of excellence, performance and innovation?

For most CIOs struggling in today's worsening economy, a finely tuned IT engine is critical to maintaining performance when dealing with budget cuts, layoffs, and dropped projects.

While we still need to get work done and deliver the necessary services to our customers (the business users in our organization), as leaders and influencers we now need to turn our attention to how we can do more with less.

This white paper introduces you to an approach that can help you improve the performance of your team and empower you to do more with your current or *smaller* organization. Whether your focus is custom software development or the implementation of packaged solutions, by looking at your organization from the perspective of **process, roles, and metrics**, we will help you identify and root out the habits that hinder performance once and for all.

### The Impact of Less Than Perfect Performance

#### If you can't act...

The first step to creating a predictable delivery process is to create a common vision among all business stakeholders. Without a common vision, the various business stakeholders all have different ideas of what the solution should be (refer to Figure 1). If IT is engaged at this point, they will try to find a solution that they think will best meet the needs. But, in doing this, the business stakeholders are abdicating their ownership of the solution that they are paying for and IT is putting itself in a no-win situation.

It is easy to understand our responsibility for maintaining IT functions such as email. It is difficult to even imagine how any organization could be functional without the use of email for one full week. Just think what it would be like if our calendars in Outlook didn't work!

The price of less than optimal performance can be even more costly. For example, can you imagine an organization being unable to implement regulatory changes for their core services in a required timeframe? What if, during this downturn, there was a new air freight option that your competitors were able to provide, but you could not deliver these same services in a reasonable time frame because your team was overloaded or your systems are too complex?

## You pay the price

As described above, inefficiency can mean lost opportunity or service to your organization. Other costs to the organization include:

- **Inability to compete:** The first line of defense in any business is a company's willingness and ability to compete. Weakness in processes, people and metrics can cause a company to falter badly — particularly in a weak economy.
- **Increased attrition:** Inefficient processes or having the wrong people in the wrong roles can result in the evaporation of your best talent. The most talented, effective engineers are often the one's most likely to leave if they get fed up with frustrating processes.
- **Too much shelf ware:** Without alignment on the business need, it is very likely the business problem will not be solved and the software will go unused.
- **Higher defect rates:** If IT does not have a clear understanding of the business need, the solution will not work the way the business expects. Although not truly a defect, the project will ultimately be considered flawed and defective.

## But there is a way...

Over time, we have found that there is a simple framework that can be used to identify obstacles in the organization and provide a genuine organizational tune-up. When asked to review a team or organization that is ineffective, we use this approach to safely identify where the core problems are. Contrary to popular thinking, we frequently find that people are not the core problem.

For example, we were asked by a President and CIO to review their organization prior to a possible downsizing. Recently, business efforts had created more work than IT had experienced in the past. Not only was IT expected to deliver more work, they were expected to deliver it without increasing the size of the IT staff. When failing to meet the increased demands, the business management felt held hostage and were prepared to replace a core part of the IT team.

In less than two weeks, we jointly used the framework described in this white paper to map out their organization and identify real opportunities to raise the performance bar and get the required work done.

Although they originally thought they had the wrong people onboard, we found that individual resources were not the problem. Rather, the core issues they faced were based on an inconsistent approach to project development. This created varying degrees of expectations, political priorities and initiatives that almost always ended up missing the real business objectives. This leadership team suffered from the same issues you would expect to have when outsourcing to an overseas firm -- even though their organization was distributed in two buildings just hours apart. Using the framework discussed below, we were able to develop standard practices that made a difference in weeks, rather than months!

**Contrary to popular thinking, people are not usually the core problem.**

## The Significance of Process, Roles & Metrics

Let's consider a unique perspective on how any technology organization can be assessed. Although certainly not the only way, we have found this approach the most useful in identifying the barriers to organizational and team efficiency.

First, let's look at a very simple view of a business management cycle:

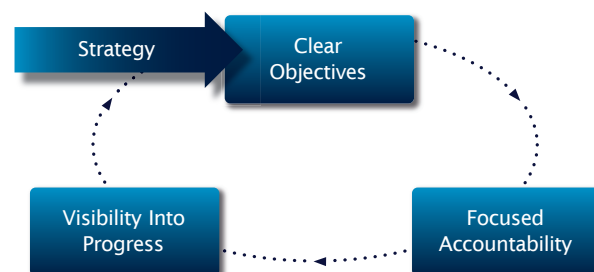


Figure 1

- An executive team defines **Strategy** for the organization.
- From this strategy, various **Clear Objectives** are defined. The assumption is that if these objectives are met, we accomplish our strategic goals.
- For each objective, we assign **Focused Accountability**. This identifies who in our organization is accountable for accomplishing the objective.
- Finally, now that we have someone accountable for a specific objective, we define how we will jointly have **Visibility into Progress**. This allows us to clearly (without ambiguity) track whether proper progress is being made towards the objectives.
- The key in this model is that everything is interdependent and is managed based on the loop. Meaning, as objectives change, we review to make sure we have the right people accountable. If objectives — or even the people change — we review how we are tracking progress (the metrics). Finally, as our metrics provide progress reports, we may modify our objectives based on the changing reality.

This is a pretty basic view of a management cycle. Now let's look at how this applies to an IT Organization.

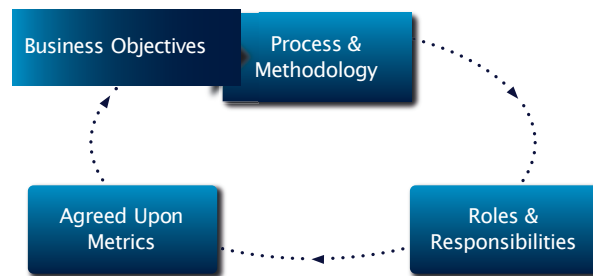


Figure 2

This is a pretty basic view of a management cycle. Now let's look at how this applies to an IT Organization.

- In IT, we use a methodology to provide a repeatable process for how we develop software or implement a packaged solution. There are several methodologies out there and each has their strengths and weaknesses.

*For the purpose of this whitepaper, a methodology is a set of repeatable processes that help IT deliver on a specific set of **Business Objectives**. More than likely, if we didn't have a specific set of goals (business objectives), we probably would not have to worry about having a corporate methodology.*

- Within each organization, there are different roles and responsibilities in IT. We typically understand the roles of Project Manager vs. Architect vs. QA Lead, etc. Think of the **Roles** and their **Responsibilities** as defining whom we hold accountable to deliver on **Business Objectives** using our corporate process (the methodology).
- Finally, PMO scorecards, or project status reports, are the tools typically used to track progress within IT. While these reports are not necessarily **Agreed upon Metrics**, they do serve as common metrics between the IT team, leadership, and the business to track progress.

These three areas of IT (Process, Roles & Responsibilities and Metrics) can have great influence on our ability to raise the performance of our teams. Most importantly, they are interdependent. For example, if your methodology is not being followed exactly the same as it once was, you may have roles “out of tune” for your organization. This can create rework or, even worse, project failures.

Or, if you have recently changed roles and their responsibilities (i.e. moving DBAs into a sharedservice/ separate unit model) you may have also revised how they track their performance and alignment to delivering on business objectives.

Bottom Line: If we tweak our processes, do we review our roles and responsibilities? Do we make sure we have the right heads in the right hats? If we do a merger, downsize, or simply get asked to do more with less, are we reviewing the metrics to see how the new organization is performing and whether we need to adjust our process or our roles?

When was the last time you truly assessed the health, performance and balance of your Process, Roles and Progress Tracking within your organization?

Let's take a look at how to get this done.

### Balancing Your Process, Roles and Metrics: The Approach

Just to clarify: This is not a silver bullet. The only silver bullet I have ever found shot me in my foot, so this is not a "one size fits all" solution. When we use this approach, we first focus on understanding the pain points the organization wants to address and the targeted areas for improvement. Then, we adjust the approach to drive these specific results.

In this white paper, it simply would not be realistic to attempt a detailed, step-by-step, cookbook approach. Rather, we are providing basic guidelines on how you can identify the specific areas of your organization that are in need of a tune up and begin to remove the barriers to optimization.

#### The Assessment: Identifying the Obstacles

This assessment is NOT intended to determine which methodology is best. As stated earlier, each methodology has its unique strengths and weaknesses and each organization needs to address the tradeoffs.

Our goal is to determine if your defined Process, Roles & Responsibilities and Metrics can be improved to help reduce the rework that causes project delays, incorrect estimates, unclear status and unpredictable IT performance.

Review your process and its adoption by how it helps to facilitate:

1. Communication of clear business objectives
2. Measurement of project solutions against business objectives
3. Ownership of the project goals vs. solution design
4. Collaboration between the business and IT to drive alignment
5. A common vision across the business, across IT, and between the business and IT

The above criteria should be present regardless of your methodology. If your organization's process, roles, and metrics do not support these best practices, you probably experience an inordinate amount of rework due to unclear success criteria. In fact, on projects that seem "run-away," your team may not really understand when the business pain is over or when their work can be declared "done."

Here is a quick approach to assess if there is an opportunity to improve your organization's use of process and reduce the potential for rework.

**Step 1:** Make a list of individuals who represent a functional cross section of your organization. You will be asking them some drive-by questions. *Drive-by* questions are questions you simply ask in the hallway as you "pass" someone. Drive-by's are a much less intimidating and more informal way of questioning and their spontaneous nature gives you a more accurate read on reality.

Most likely, your individuals will include a sampling of Project Managers, Architects or Technical Leads, Business Analysts and Quality Analysts. If you can get one to three of each role, you will have a good sampling. It would help to even include a few people from the business who own projects you have recently worked on.

#### Volleyball, Anyone?

Does your organization act like it's in a volleyball tournament? Do you throw information and completed work over the net for review just to repeatedly get it thrown back with corrections until folks finally agree on "done"? Or, even worse, until they give up on throwing it back? If so, you are experiencing real rework. The volleyball syndrome can hit during requirement gatherings with the business; design sessions with architects or data administration groups; different parts of large development teams; and between QA, UAT and the business for sign-off.

"Run-away" projects are often the result of the team not understanding when the business pain has been solved or when their work can be declared "done."

**Step 2:** Before questioning your team, you should jot down your own answers. For each question, provide a quick bullet or two. Under them, write a quick implication statement identifying the cost or benefit of your current situation (e.g. does it create rework).

**Step 3:** Following the list of questions, we actually share why these questions are asked. In other words, we describe the implications of the answers that can cause rework or inefficiencies in your organization. The questions at first may not seem relevant or make sense. Feel free to adjust the questions based on this section of explanation.

### Assessment Questions:

#### *For Process and Methodology:*

1. Do you believe we use our “process/methodology/software development life cycle (sdlc)” across projects consistently? In other words, do we have consistent approaches across projects?
2. If not, is this “intentional?” Do individuals (e.g. project leadership) make explicit decisions to deviate from a standard process?
3. Do all the business stakeholders agree on the goals of the project and what is defined as completion?
4. How do you (the individual you ask) know if a project is late?
5. How do you know when your part of a project is completed? How do you know when the overall project is completed? Does the team have this information and does it pertain to business objectives?
6. Who owns defining requirements? Is this different from who owns “documenting” requirements?
7. Does your process help or hurt developing a common vision across the business stakeholders? Does your process help or hurt developing a common vision (of success and business goals) across IT? What about between business and IT?
8. Is project success determined by being on budget? On schedule? Meeting the original business objectives and ROI? Which one?
9. In general, after collecting requirements, are change requests introduced within the first 30 days of the development life cycle?

Regardless of Waterfall or Agile, we have been quite surprised at the answers we receive. *The biggest surprise is how inconsistent these answers are across individuals within a single organization!*

#### *For Roles & Responsibilities:*

1. Let's take a solution that is delivered, but technically flawed. For example, you receive a word processor, but the spellchecker only works for documents less than five pages long. Do you have a single person and role on the project accountable for the technical issues? If so, whom?
2. If you deliver a solution that works, but it is missing key features required by the business, is there a single individual and role that is accountable for making sure this doesn't happen?
3. Are your project managers accountable for tracking progress on a project, making visible the health and status of your project, and managing individuals within your organization? Are the responsibilities for this role consistent across all projects and project managers?
4. Do you have specialized groups of skills such as the DBA group, Architect group, and the Analysts? If so, are they set up as shared services? In other words, how are they measured? Are they protecting the organization from bad habits and enabling the teams to deliver business solutions more effectively?
5. Are your specialized teams identifying and developing best practices that can be used to drive better business value?
6. Is Quality Assurance a group that participates after development? Does UAT get planned when the project is 50% underway or at the beginning?
7. When launching a new project, how do you view the leadership assignment? Is that a single role such as a Project Manager? Do you have a team accountable for different aspects of a project's success? Is this consistent across projects?

**For Agreed Upon Metrics:**

1. Does your team use one internal project tracking report for status while the external report is different? Or is there a common report shared showing progress on the project?
2. Do project status reports show progress in terms that the business understands? Or is it in “IT speak” with the business needing some translation?
3. Do the business and IT team members typically have a consistent view on project status and health?
4. Does IT track progress based on business milestones or based on internal IT project plans?
5. Does IT and business leadership regularly trust the project status reports that are presented across IT? When do they or when don't they (if it's inconsistent)?

**The Implications: Opportunities for Improvement**

Next, we share our thinking behind these questions and reveal the potential opportunities for improvement these questions are designed to uncover. Now you can begin to identify the specific areas of your organization in need of a tune up and remove the barriers to optimization.

**Process & Methodology: Implications**

Definition of Business Need: When defining a project's goals, there are distinct steps that happen implicitly or explicitly. The business has specific objectives that the project is to enable. It is typical for an organization to rely on a “requirements” process to define these objectives. *However, using the requirements process for this purpose is frequently at the core of rework and misaligned teams and projects.*

When requirements are written, they are typically written “by IT” with “input from the business.” That means that IT hopefully understands what the business has articulated. After playing volleyball with requirements (passing them back and forth between the business and IT for reviews), most business teams will finally sign off to get the project started. If IT doesn't deliver what the business really needs, IT is then blamed for improper requirements.

We have seen again and again reduced rework and truly delighted business partners when the business is held accountable to “define” their need, and IT is accountable for translating that need into design and delivering on business objectives.

Does your process increase or eliminate this issue?

1. **Expectation Management:** Does IT “really” know the business better than the business? If IT is driving the definition of business need, should we be surprised if the business receives a solution that doesn't fit their need? More importantly, is IT measured by their ability to improve business performance? Are they aware of business strategy?

The business, or their proxy, must be accountable for defining the business objectives a project is trying to meet. The more assumptions introduced, the more rework or missed expectations exist.

**Uncovering the Rework/Misalignment Cycle**

Frequently, a team's inability to meet project dates and expectations is due to too much unnecessary rework. For example:

- Rework due to technical challenges may appear as fixing one defect only to uncover three more.
- Lack of alignment can lead to rework at the end of a project because the project did not meet business expectations.
- Another consequence of misalignment is the business' failure to fully adopt a costly new system because it only covers 80% of their needs. This prevents an old legacy system from being turned off, leading to more waste.

- 2. End-to-end Project Visibility:** If a team, collectively, does not understand the end game and all the milestones that lead up to that end game, then they can't make individual decisions to help the project stay on track.

Occasionally, we even see organizations where the methodology actually introduces “blocks” that prevent anyone from truly seeing the overall picture of a project. In these cases, although not personally intentional, only the top most individual or PMO gets to see that end-to-end view.

This kind of process presents significant challenges to the team and has the potential to create all sorts of rework and missed deadlines.

## Roles & Responsibilities: Implications

The most critical issue for Roles & Responsibilities is to identify roles for each project in three key areas. Is there clear ownership for:

1. **The technical solution.** Is it properly designed and does it technically work?
2. **The business solution.** If it works beautifully technically, does it truly meet the business objectives?

Note: There are NOT separate project and business objectives. These should be one and the same.

3. **Project visibility.** Is there a clear view of project progress and health?

Although they may be the same individual, these clearly defined roles are typically the (1) Architect, (2) Senior Business and Quality Analyst(s), and (3) Project Manager.

If the solution doesn't function or has high defects, you must first ask what the defects are related to. If fixing one issue uncovers three more, this is typically a technical quality issue. You do not need to talk to the Project Manager about this.

*Find the architect!* That is the Architect's role and ownership. It is why we have this role on the project.

If the system works, but the business can't find their key functionality, *seek out the Business Analyst and the Quality Analyst* (again, this can be the same individual). Did we build the right thing? They are accountable for making sure there is alignment.

The Project Manager is accountable for visibility and “enabling” the team. The role of Traffic Cop belongs to the Project Manager as well.

## Agreed Upon Metrics: Implications

The biggest issue we see here is the problem of a glass “half full.”

For example, we recently worked with a team making progress on a technical problem by figuring out how to seamlessly integrate the web system to the backend CRM solution. They marked their progress as being 80% done. Just two more weeks and they would be totally done.

They declared their glass as “half full.” However the business did not really see it that way. They did not understand why some of these technical backend challenges were victories. As a result, they did not see the glass as half-full. In fact, they did not even see the glass as “half-empty.” *To them, the glass was “totally empty” because they had yet to receive any real value!*

The room for improvement here is to develop metrics that define progress and realized value in terms the business understands and appreciates.

### What does lack of alignment feel like?

- IT develops and delivers the project. They are excited, calling it a technical victory. Their cup is totally full.
- The business is surprised and disappointed. They don't see the business value they need. Their cup is empty.

We want both sides drinking from a full cup!

This may mean developing systems in phases. *Or it can simply mean having IT measure progress consistently with the business based on business milestones and objectives.*

The questions in the assessment are designed to reveal whether “how you track progress” actually magnifies the glass half-full syndrome and creates missed dates and lack of clarity.

### After the Assessment

Although we have not asked all the questions, nor given you all the answers, this approach will help you uncover ways your team can begin to perform at a higher RPM. The answers you get from your team may surprise you! Once opportunities for improvement are identified, it is our experience that the entire team will rally to find the solution.

Typically, after an assessment, most organizations take the following steps:

- Step 1: Strive for consistency.** Any changes you make to an inconsistent organization cannot be measured. As a result, you won't know if you are making true progress. Your first goal is to create a consistent organization as it relates to Process, Roles and Metrics. Then, the impact of your changes can be assessed and you can verify whether you are getting the improvements you are looking for in the right areas.
- Step 2: Look for evolutionary opportunities.** Once your organization has consistent processes and roles, start looking for low hanging fruit that provide evolutionary value. For example, make sure that everyone in the role of Project Manager has the same responsibilities (instead of having different roles for the same job). In addition, can you make sure that every project has a consistent scorecard that reflects business milestones? These are the kinds of changes that are less intrusive and require less change management.

### To Wrap It Up

A maturing organization has many opportunities to improve the efficiency of its current teams. These changes do not have to be intrusive and, more often than not, we find that most teams actually feel relieved when these thorny areas are addressed.

The approach described in this white paper can help you steer your team around these barriers and on to success. In so many cases, *doing more with less* may simply be a matter of evaluating processes, people, and metrics and identifying the habits that hinder performance. Unresolved, these habits often become the battleground where IT's ability to deliver business value is determined.

### About the Author

#### Bob Zimmerman, Geneca VP and Managing Partner

This whitepaper is based on the teachings of Getting Predictable<sup>SM</sup>, a collection of software development best practices evolved by Mr. Zimmerman over the past 20 years. Mr. Zimmerman is considered one of the Industry's foremost software methodology experts and works tirelessly with CEOs and CIOs to resolve many of the persistent problems affecting IT's ability to deliver business value.

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## About Geneca

Chicago-based custom software development firm, Geneca, helps its clients meet their business challenges by bringing predictability to the software development process. Getting Predictable<sup>SM</sup>, Geneca's pioneering approach to Requirements Definition and Management, has an outstanding success rate in helping its clients drive clear business alignment by identifying project objectives and success criteria. Learn more about Getting Predictable<sup>SM</sup> and Geneca's other software services at [www.geneca.com](http://www.geneca.com).

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