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# Project Management Success and Decision-Making Under Difficult Contexts

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## Abstract

Project success depends on many factors; and, at the same time, little agreement exists about the definitions of success. In this session we discuss the challenges of difficult project contexts, and frameworks for minimizing those challenges. We then weigh the decision-making trade-offs in key factors that contribute to success. And then we see another challenge: What are the impacts of personal behavioral styles, and interpersonal skills? Do they impact success? Do they add or reduce difficulty? Finally, we discuss differing definitions of success, with a conclusion that they are singly wrong, and together correct.

Project Management standards can help in answering these questions, and increasingly, they are all moving in the same direction: From Knowledge to Competence, from Technical knowledge areas to broader understanding of the most important factors for project success. And today, our discipline, with its supporting standards, is embracing difficult contexts by moving from memorized processes to practiced behaviors and competences. Success in difficult contexts results from integration of all these factors, and this session provides the roadmap for that integration.

## About This Paper

This paper was presented as the keynote address at AMIP, IPMA-Mexico, 2<sup>nd</sup> International de la Asociacion Mexicano de Ingeniera de Proyectos Simposio. The event was 28-29 November in Saltillo Mexico, and was a great event, with excellent organization, huge attendance, and wonderful presentations by all speakers.

## About IPMA

In this paper and presentation, we mention IPMA®, the International Project Management Association. IPMA is the world's first project management membership organization, founded in 1965. Our original name was INTERNET, long before the name was borrowed for the World Wide Web. IPMA is a federation of national organizations, such as the Mexican Project Engineering Association (AMIP), *asapm* in the USA, and a half dozen others in the Americas, with more around the World. IPMA's role-based, competence-oriented certification system assures that different PM roles have the specific competences needed to improve project and program decision-making, leadership, and overall PM and enterprise success.

## Difficult Contexts

What makes a difficult context difficult? The difficulty can be caused by many factors, and both the environment of the project, and the choices made in achieving it contribute. Let's begin with examples of difficult contexts. In 2006 I participated in the judging of China's top Construction Project Managers of the Year. Ten finalist Project Managers had completed their papers describing their project challenges and the actions they took on a wide range of projects. My job, together with several other IPMA representatives, was to ask difficult questions, in front of an audience, and to score them based on their answers. This, in itself, was a difficult context for them.

Their projects ranged from the Beijing Olympics Birds Nest event facility, to a major sub-Saharan highway, to a water purification plant in Bangladesh, to the new tallest building in downtown Beijing. Many of our questions dealt with the challenges they faced, and how they overcame them. In most cases, the greatest challenges were those of difficult contexts.

### ***Context Challenges***

Based on these examples, we can already see a wide range of challenges only occasionally experienced by typical projects, but in these situations, caused by certain unique initiative contextual concerns:

- » Very long-distance supply chain for food, water, materials
- » Poor telecommunications—in some cases only via satellite-connected phones
- » The only electric power was what the teams generated
- » Personal safety; chance of attack or bodily harm
- » Potential for disease, sickness, or injury by predatory fauna
- » Financial risks, ranging from currency arbitrage to theft, graft and corruption
- » Huge transportation volumes required to deliver supplies in traffic-jammed cities
- » Schedule and cost risks, based on slow supply of new parts needed
- » The wide range of talent and experience in the available workforces
- » Legal challenges, ranging from differing contract law to overly-litigious nations
- » Different cultures, often 3-5, with language barriers, and a variety of customs
- » Slow communications required more local decision-making
- » Such minor issues of ethics and laws about bribery, versus the need to get things done
- » The balance of eliciting local knowledge while still sharing subject area expertise

### ***What Are Your Context Challenges?***

And this is just a sample. What are the challenges you face, that are based on your contexts?

### ***Project Decision-Making***

Project Decision-making is difficult enough without context challenges. We constantly encounter the classic trade-offs of time versus cost; or of time and cost, versus quality. Often, we must make decisions to act to prevent likely risks, or to ignore them. The difficulty increases with poor project planning, poor status tracking or change control, slow reporting of open issues, or failure to make essential decisions quickly. And then, we add the above-discussed challenges of the difficult context.

Some Contextual Challenges are the result of the trade-offs made in decision-making. Local construction firms could have been hired to build the Sub-Saharan highway. But that had been tried, and failed multiple times. Even the challenge of delivering millions of kg of building supplies, girders and cement per week in traffic-jammed Beijing could have been avoided by choosing to build elsewhere. But that was not the decision made. And after all, is PM not the delivery agent of the Enterprise Executive's strategy?

Project decisions about the selected solution can also add difficulty and change context: Should we wait until we have a delivery system that can place an entire International Space Station in orbit all at once, or assemble it in space, using multiple trips by much smaller rockets? Talk about Difficult Contexts! Too often, project or program decision-making is based too much on "hunches" and not enough on facts. Why? Sometimes the facts are slow to be discovered. Sometimes they do not exist.

### ***Managing the Wrong Factors***

As reported elsewhere<sup>1</sup>, project decision-making can be placed at risk by project managers who plan and track the *obvious* indicators, rather than the *important* ones. In the diagram below, you see the Project Vital Signs (our use of these factors preceded the original 1987 PMBOK®, where they appeared as Knowledge areas).

Viewing the chart, where do *your* project managers and team members spend most of their planning and tracking time? The secret of the top 10% of project managers, those who are competent, is to manage the factors on the lower half of the chart—**those are the levers to success**. Of course, they do monitor the lagging factors, on the top of the chart. And, as explained in the above-mentioned article, the majority of not-yet-competent project managers and teams focus upon tracking the factors on the top half of the chart. Many only track two of those—Time and Cost—leaving Quality for the buyer or end user to manage—sometimes **after** the project.

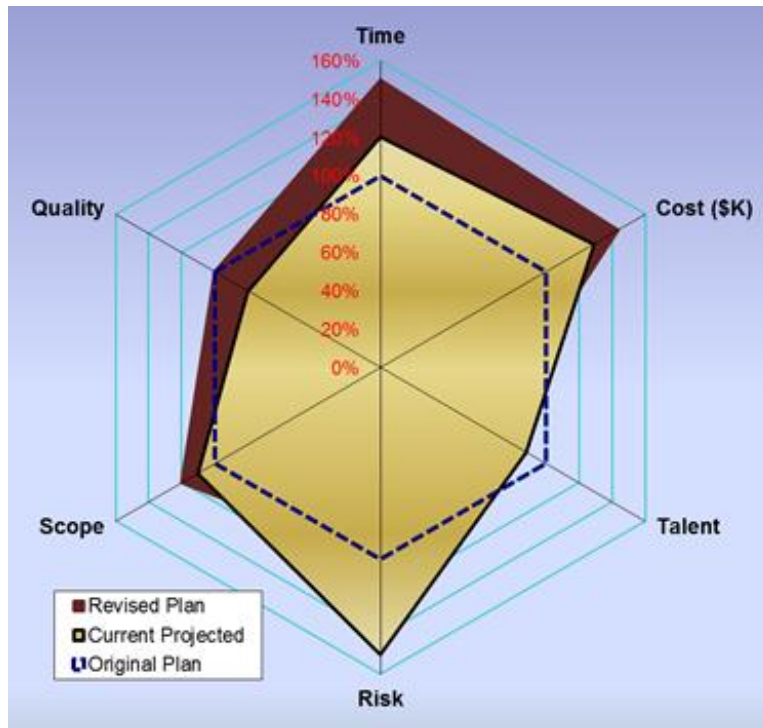


Figure 1; Goff: Planning and Tracking the Project Vital Signs

### ***Time and Cost are lagging indicators!***

The best decision-making comes from planning and tracking the leading indicators: These are primarily Talent and Scope; Risk in and of itself *never affects a project*; but Risk Realized manifests in Time, Cost and Quality overages. And here is another insight: The most effective project managers also communicate actionable information, in addition to just data; those who are least effective tend to focus just upon data. Which do you spend the most time planning, tracking and communicating?

### ***Decision-Making in Difficult Contexts***

Clearly, the difference between project success and shortfalls occurs for those Project and Program Managers who plan and manage the leading indicators. They communicate quickly with Decision-makers above them who can act to prevent negative outcomes. The chart above helps to show that once a problem shows up on the lagging indicators, it is too late to prevent them, you can only recover.

So, which of the Vital Signs do **Difficult Contexts** affect the most? Clearly, they affect **Project Risk**. As most know, Risk never hurts a project. It is Risk Realized that hurts some or all of the lagging measures, plus potentially, the intended benefit realization. Note this distinction of Internal Risk, affecting project success indicators, and External Risk, affecting business success indicators, both apply: Both are affected by Difficult Contexts.

Of course, this analysis only involves six Vital Signs. What if there were many, many more factors to manage? How would that affect Decision Making in Difficult Contexts?

### IPMA Demonstrates Needed Insights

The truth is that there are far more than six vital signs, or nine Knowledge Areas. IPMA has long known this, and the IPMA Competence Baseline (ICB®) includes 46 Elements that effective project managers and teams manage. And, these are more than just Knowledge topics: They are **Competence Elements**, which distinguish certified Project Managers who can provide evidence with their portfolio of performance. This is much different than merely memorizing facts, processes and formulae for an exam. In the chart below we illustrate the Competence Elements in the same format as the Periodic Table of Chemical Elements; what better way could there be to illustrate essential elements?

## The Periodic Table of Project Management Competence Elements

**IPMA PM Competence Element Groups**

- Contextual Competence Elements
- Technical Competence Elements
- Behavioral Competence Elements

									2.01 <b>L</b> Leadership	
3.01 <b>P</b> Project orientation								2.02 <b>M</b> Engagement & motivation	2.03 <b>Sc</b> Self-control	
3.02 <b>Pg</b> Programme orientation	3.03 <b>Pf</b> Portfolio orientation							2.04 <b>As</b> Assertiveness	2.05 <b>R</b> Relaxation	2.06 <b>O</b> Openness
3.04 <b>Pp</b> Project, program & portfolio implemen.	3.05 <b>Po</b> Permanent organization	1.01 <b>Ps</b> Project management success	1.02 <b>Ip</b> Interested parties	1.03 <b>Rq</b> Project requirements & objectives	1.04 <b>Ri</b> Risk & opportunities	1.05 <b>Q</b> Quality	2.07 <b>Cy</b> Creativity	2.08 <b>Ro</b> Results orientation	2.09 <b>E</b> Efficiency	
3.06 <b>Bu</b> Business	3.07 <b>Sa</b> Systems, products & technology	1.06 <b>Po</b> Project organization	1.07 <b>T</b> Teamwork	1.08 <b>Pb</b> Problem resolution	1.09 <b>Ps</b> Project structures	1.10 <b>Sd</b> Scope & deliverables	2.10 <b>Co</b> Consultation	2.11 <b>Ne</b> Negotiation	2.12 <b>Cc</b> Conflict & crisis	
3.08 <b>Pe</b> Personnel management	3.09 <b>Hs</b> Health, security, safety, & environment	1.11 <b>Tp</b> Time & project phases	1.12 <b>Re</b> Resources	1.13 <b>C</b> Cost & finance	1.14 <b>Cn</b> Procurement & contract	1.15 <b>Ch</b> Changes	2.13 <b>RI</b> Reliability	2.14 <b>Va</b> Values appreciation		
3.10 <b>Fi</b> Finance	3.11 <b>Le</b> Legal	1.16 <b>Cr</b> Control & reports	1.17 <b>In</b> Information & documentation	1.18 <b>Ca</b> Communication	1.19 <b>Su</b> Project startup	1.20 <b>Cs</b> Project closeout	2.15 <b>Et</b> Ethics			

Figure 2; © 2008 Stacy Goff: Periodic Table of IPMA PM Competence Elements

We wish to emphasize the key parts of this chart. The Technical Elements in the center are similar to the PM knowledge areas of other organizations' bodies of knowledge. They are clearly essential to the success of any project. But remember, here we are discussing Competence Elements, not just Knowledge elements. This is a higher level of grasp of the subject. And, note that we do not just list nine areas, but 20. Do you see any there that you could skip in your projects?

To the right are the Behavioral Elements. Those have not, until recently, even appeared in the baselines of other organizations, but IPMA has recognized for years that these "soft skills" have a greater impact on project success than all the technical elements together. For those who remember their chemistry, it is with some irony that we have placed the Behavioral Elements in the same location of the Noble Gas elements in the chemical table.

Finally, on the left, we see the Contextual Elements. To a great extent, these provide the competences that help to overcome the risks of typical contexts, *and of the Difficult Contexts*—our focal point. For example, can you work effectively with the last six Contextual Elements, both those within your Permanent Organization, and those in your suppliers, contractor, and strategic partners? And what about the first four Contextual Elements, that define your maturity or effectiveness as a Project-oriented enterprise?

### **Implications**

The implications of IPMA's approach are clear: Anything less than a course of study that covers all of the IPMA Competence Baseline is ineffective in managing *any* project to a successful conclusion. Further, in the case of projects with Difficult Contexts, it should be clear that it is unprofessional to attempt to manage with just six vital signs or nine knowledge areas, when you must demonstrate 48 Competence Elements.

Here is another implication, of the sort that becomes obvious upon its mention. In the case of the chemical elements, the table is a good way to categorize and represent them, but rarely does any one element stand alone in our environment. Instead, most elements are combined in *molecules* that constitute the physical items we use daily. Examples include H<sub>2</sub>O, for water, CO<sub>2</sub>, which we exhale; NaCl is salt. Interestingly, add Oxygen to it, NaClO, and you get bleach. Exceptions to this molecule theme include Au, for Gold, and C, for Diamonds, which is the same as for Carbon. These precious elements stand-alone very well.



In applying IPMA's ICB, we rarely use Competence Elements in isolation; instead, we mix them with others to complete project work. This is like developing very complex "molecules": Project Initiation, for example, includes many of the Technical Elements, combined with most of the Behavioral Elements, with some of the Contextual Elements. If key elements are missing, we fail. So, while we might learn and master each element individually, the most effective Project Managers learn to demonstrate them in specialized combinations—at a mastery level. And, as we saw the exceptions in the precious elements above, Leadership and Ethics, two ICB Behavioral Elements, also have exceptional value in stand-alone mode in projects—as well as mixing well with other Elements. Truly they are precious elements!

Among the benefits of recognizing the Contextual Elements, and harnessing their power, rather than becoming stymied by the assets and processes of the permanent organization, are the following:

- Managing Conflicting Priorities: Projects vs. the Permanent Organization;
- Improving Team Acquisition and Building in a Competitive Talent Market;
- Harnessing the Supply Chain, and having it work for you, together with your Legal Department.

Obviously (or not), the permanent organization is the place that your post-project success will be judged, and you'd probably prefer to understand that from project start-up, wouldn't you?

## The Role of Knowledge

We mentioned above that IPMA's approach moves beyond Knowledge, to embrace Performance Competence. Some, who envy IPMA's strengths, use our terms freely, in hopes they will be perceived as advanced. Let's put the terms into perspective. **Knowledge** is an important foundation. But, it is like Potential Energy: By itself, it accomplishes nothing. It must be applied, to accomplish anything. And, it must be applied quickly, because the half-life of Knowledge-not-applied is two weeks.

As Knowledge in a particular Element, or more appropriately, a topic within an Element is applied, it begins to build Skill. **Skill** is more like Kinetic Energy. It accomplishes something. Skill has a longer sustained life; managers who recognize and reward demonstrated Skill tend to move the learning to the next step.

Reinforcing **Attitudes**, coming from recognition and reward, tends to perpetuate the new learning. And, here, we also combine more soft skill: The **Behaviors** and interpersonal skill of the learner must develop, together with the other new Technical skills. If an Engineer is not particularly "user-friendly," people are not inclined to work with him or her. Thus again we see the "molecules" of ICB Elements, as mentioned above. Those who focus just on one new skill, without combining them with appropriate behavioral Elements, will not succeed for long.

Mastering the Attitudes and Behavioral step on the ladder, we next come to demonstrated **Competence**. This is measurable in projects, because competent practitioners demonstrate end-to-end mastery of the combination of knowledge, skill, attitudes, and now, experience, in their projects. Not only that, but truly competent practitioners can flex and adapt that combination for different situations, a level of mastery far beyond simple knowledge regurgitation.

We must point out that all these factors are inputs. While they are essential for PM Success, inputs alone are **not** what Executives are seeking. They want Results, and the ultimate result they seek is project **Performance**. And you now share the secrets of a truly competence-based approach to project management.

## IPMA Certifications

Now you can see the unique aspects underlying the IPMA certification system. We cover much more of the landscape of Project Management than do others. And, we assess and certify at a deeper level of rigor, and demonstrated performance competence. We do offer an important foundation certification, IPMA Level-D® Certified Project Associate.

This knowledge-based examination-oriented certification is an important step in understanding the breadth of the IPMA elements. But, as compared to others, this is the first step on our ladder, not the only step. The other IPMA Certifications in the 4-L-C system are advanced, professionally assessed, role-specific, competence-based certifications.



The IPMA 4-L-C, Four Level Certification system includes:

IPMA Level-D® Certified Project Associate, our foundational, knowledge-based Certification  
IPMA Level-C® Certified Project Manager, the first of our advanced role-based Certifications  
IPMA Level-B® Certified Senior Project Manager, or Certified Program Manager  
IPMA Level-A® Certified Projects Director, or Certified Senior Program Manager

(Note that some IPMA Member Associations include different roles in levels B and A.)

## PM Success

So far we have discussed the Difficult Contexts of our projects, and shared insights into Decision Making. The reader can clearly see the role of competence in a wide range of subjects or elements. And yet, there remain key questions about Project Success. Not all people can agree on the answer to the question, what is Project Success? Some still think it is managing “the triple constraint” or “the golden triangle.” But that is only for those who are not-yet-competent. Many think it means managing all the Vital Signs, so the project measures are within expectation. That is certainly important, isn’t it?

Others say that, while those measures can be important, what is essential is that the project *met its purpose*, demonstrating the “business success” expected of it. And, back to our Periodic Table of Competence Elements chart; note that the first Element, 1.01, Project Management Success, includes actions that, from project concept all the way through benefit realization, define the measures of success for each unique project.

We think that the two choices are not mutually exclusive; that it is not either or, but both. In most cases, a project that meets just one area, either project measures or business measures, is viewed as a failure by some or most of its stakeholders. Thus, in Difficult Contexts, where there are even more threats than in other projects, it is essential to manage to **all** the ICB, not just to a fraction of it, and to define, from the very beginning of the project, how you will measure, and who will measure, your success. You cannot accomplish this just with tested knowledge; it requires our progression of knowledge, skill, attitudes and behaviors, competence, and performance. Are you competent as a pm? (*asapm*).

## Conclusions

This is a wide discourse on a very complex topic, covered in a limited period of time. Its purpose is not to convey mastery, but instead to inspire the reader or listener to pursue this subject further. Certain of the Elements in IPMA’s ICB are lifelong learning topics; and just as there is no limit to the levels of mastery of many of them, there is no limit to the levels of success you can achieve as you incrementally improve in each.

To summarize our topic, *Project Management Success and Decision-Making Under Difficult Contexts*: while project management is a difficult, yet exciting topic, difficult contexts increase the challenges. And yet, certain practices differentiate those professional Project Managers who have truly mastered our discipline. They demonstrate end-to-end competence across a broad landscape of competence elements—especially in complex contexts.

They improve information flow and decision-making, by conveying timely and actionable information in time to *prevent problems*, rather than merely recovering from them. They have agreed, with all their stakeholders, what PM Success looks like, and the strategies, actions, and role of each in achieving it. They ease the risks of difficult contexts while using their behavioral skills to keep all stakeholders engaged, even when the difficulties increase. They are exceptional candidates for IPMA’s advanced competence-based PM certifications.

## About the Author: STACY A. GOFF

Stacy Goff, *the PM Per4mance Coach*, is Vice President of Marketing & Events for IPMA, the International Project Management Association, and President of *asapm*, the American Society for the Advancement of Project Management (IPMA-USA). In these roles, Goff helps guide the practice of performing project and program management, presents key-notes, and speaks at conferences around the World on topics related to effective practices, and improved PM performance. During 2011 he presented, both directly and remotely, to dozens of audiences on five continents.



When he isn't serving the needs of not-for-profit organizations, Goff is owner and President of ProjectExperts, a Program and Project Management consulting, tools and learning (training) company. A Project Management practitioner since 1970 and consultant since 1982, he helps improve enterprise, department, project team or individual pm competence, effectiveness and performance. His specialties include effective start-up of major initiatives, in-house methods improvement, including setup, auditing and improving the effectiveness of Project Management Offices (PMOs), and overall organizational PM Performance improvement.

An insightful consultant and dynamic speaker, Mr. Goff offers workshops of interest to Executives, Managers, Program and Project Managers, and individual contributors. His Project Management tools and methods are used by government agencies, Enterprises, consultancies and individuals on six continents. By the year 2000, he had exposed over 45,000 people to the World of Project Management. Since then, his articles, book chapters and blog postings have been translated into over a dozen languages, and viewed by many more.

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<sup>i</sup> *Project Levers and Gauges* is an article by Stacy Goff, published in 2005, and available at the *asapm* website: [http://asapm.org/asapmag/articles/ProjectLevers\\_andGauges.pdf](http://asapm.org/asapmag/articles/ProjectLevers_andGauges.pdf).

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