August 2010 Issue #12

BioPharmaPM

NEWSLETTER

Introducing PPM Feedback Metrics

A tool for evaluating PPM (Project Portfolio Management), obtaining objective data and identifying opportunities for improvement

Identify Projects with the Greatest Chance of Success

How physics governs your project selection

How to Prevent M&A Heartburn

Challenges with Mergers & Acquisitions

CONTENTS

pg.03 Note from the Chair

pg.04 2011 BioPharmaPM Conference Notice

pg.05 Web Corner

pg.06 Introducing PPM Feedback Metrics

pg.12 Identify Projects with the Greatest Chance of Success

pg.21 How to Prevent M&A Heartburn

pg.26 Notice: Claim Your BPPM PDUs Online

pg.35 BPPM Calendar of Local Group Meetings

pg.37 BPPM Regional & Vice Chair Roster

Want to Submit an Article to the BioPharmaPM Newsletter?

Send an email to William Coles at Newsletter@BioPharmaPM.org and request the *Article Submission Guidelines*.

Place "BPPM Author Submission Inquiry" in the subject line.

Notes from the Chair

By Aileen Morgan
Email: chair@biopharmapm.org

Dear BioPharmaPM Supporters,

Welcome to our Third Quarter Newsletter and I am sure you will find it very interesting and full of useful information and perspectives. In this edition you will discover two fascinating articles by Gary Summers informing you how metrics can be used to improve Project Portfolio Management and how gaining a better understanding of Bayes' Law will improve your portfolio decision making. We also have an article that was originally published by the Scrip Institute in San Diego that I think will be pertinent to many of us; sharing how to avoid many of the pitfalls that can beset the M&A process. I would like to thank the authors and encourage our readers to submit an article for our next newsletter.

I do hope you have all been enjoying the Summer months and especially all the sporting events that have entertained us! With the World Cup, the Tour de France and Wimbledon, at one point I for one spent a lot of time glued to the screen! One of the aspects of these large international events that I enjoy the most is the exposure to the cultures of the host nation and the various participants. I think this was especially true for the World Cup this year and in particular I was struck by the increased energy and hope for growth that was exhibited by the African nations. I think this is truly a time for the emerging markets of the world to come to the forefront and I am sure those of us in the Pharmaceutical, Medical Device, and Life Science industries will see this increasingly in the coming months and years, making for both exciting and challenging opportunities!

Coming up in February next year we have our next annual conference and our advisory board is working hard to assemble an exciting agenda for you. We expect it to include topics to enhance your project management technical expertise, and also to include considerations of working in this emerging multi-cultural global environment. If you are interested in speaking, or have suggestions for additional topics you would like us to include, please see the details on page 4 and contact us.

Thank you for your continued support,
Aileen Morgan
Chair, BioPharmaPM

2011 BioPharmaPM Conference Notice

Mark your Calendars

February 2011, San Diego, CA

The 8th Annual Project Management Conference for the Drug & Device Industry will take place mid February, 2011 in San Diego, CA

A Call for Speakers

An advisory board chaired by Greg Kelner from Biogen Idec is currently working on the conference agenda. We are now calling for speakers. If you are interested in participating, please review the topics below and email us at: ***feedback@biopharmapm.org***
Deadline for consideration is September 15, 2010.
BioPharmaPM is a non-profit, speakers are eligible for 50% discount on conference attendance and qualify for speaker PDUs

Pricing

Prices to attend the event have not been finalized, but they will be less than $1,000 per attendee (bringing you almost a 50% discount compared to last year fees of $1,800 or more).

Location

Our conference will be co-located with another event on Critical Chain. BioPharmaPM registered attendees will be able to attend the other event presentations as they choose at no additional cost.

Current Conference Topics Being Discussed are around the theme of Project Management: Going from Acceptable to Exceptional

- How to make your project successful in Emerging Markets
  - Project management considerations for moving into new markets including conduct of clinical and non-clinical studies
  - Addressing regulatory hurdles
  - Increasing your cultural awareness
  - How to address some of the process and logistical challenges in development and commercialization
- How to use social media to improve your project performance
- How to manage multi-generational teams in this technological age
- What can be learned from project managers in the range of the life science fields? A panel discussion with project managers in life sciences with academia, diagnostics, devices, bio/pharma (small molecule vs biologics)
- Software showdown: MS project vs. OPX2 vs ……etc. What is the best system for your organization?
- Tools and techniques to accelerate product development
- Leadership skills for project management excellence

We have listened to our members and our 2011 conference will include many features you have asked, including more panels and tracks on global trials. We look forward to seeing you in beautiful San Diego.

The Deadline for You to Submit a Conference Topic and/or Show Interest in Becoming a Speaker is
September 15th, 2010

Web Corner:

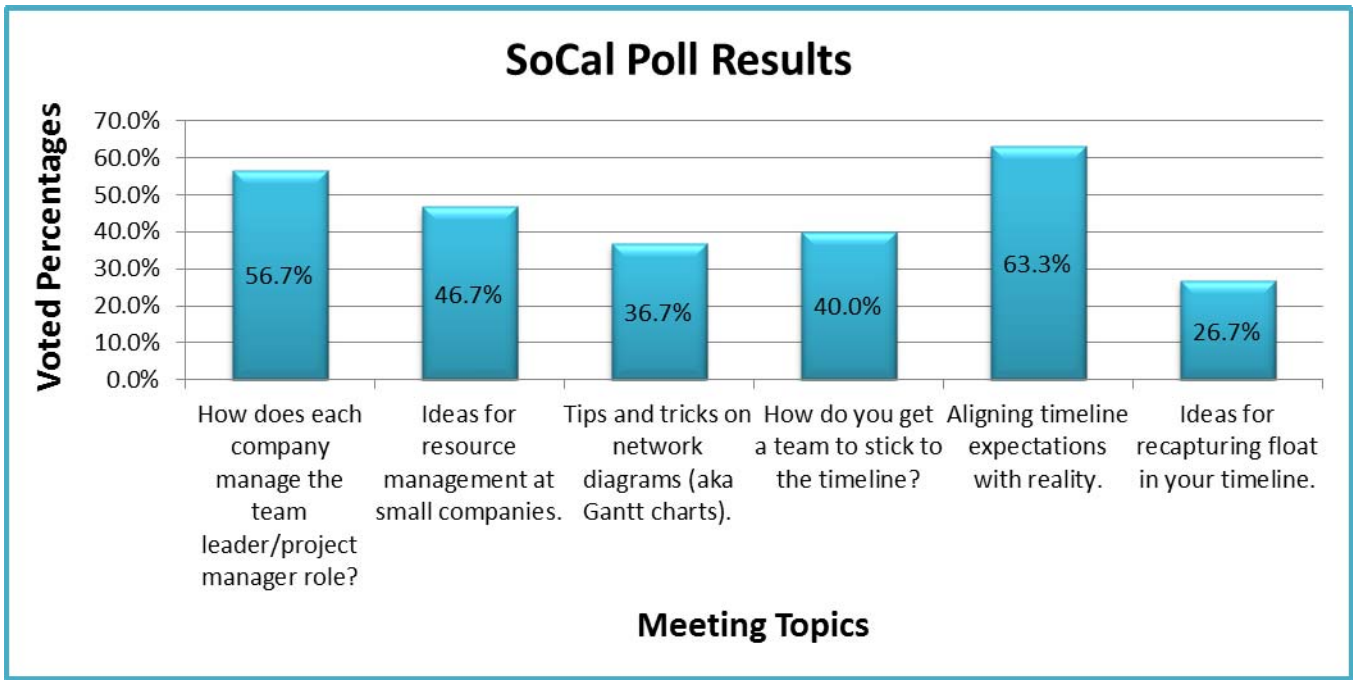
Online Member Poll for Local Meeting Topics

By: Frances Park, Ph.D., PMP
Email: frances_park@yahoo.com

"What topics are your fellow members interested in?"

BioPharmaPM is always exploring ways to provide the best service to its local chapters. The So-Cal chapter recently had an online vote for topics that are worth holding an extended meeting on.
The results from the online poll are here below for you to review – This is a chance for you to peek into the interests of the So-Cal BioPharamaPM members!

Results of survey question 1 of 1:
SoCal BioPharmaPM is planning a joint meeting for both Orange County and San Diego attendees to attend. We currently envision a panel discussion with additional open forum discussion afterwards of what has and hasn't worked for *you*. So this meeting will consist of content from the panelist as well as you! In light of this, please select THREE topics that interest you for this meeting.



Other Suggestions of Meeting Topics:

1. How Project Managers can also be effective Leaders
2. Why every project manager needs to develop emotional intelligence
3. What are the major issues you face dealing with people from other cultures, and how do you deal with these issues?
4. What techniques do you use to help the team develop your strategy and what techniques do you find most effective for communicating this?

Introducing PPM Feedback Metrics

A tool for evaluating PPM, obtaining objective data and identifying opportunities for improvement

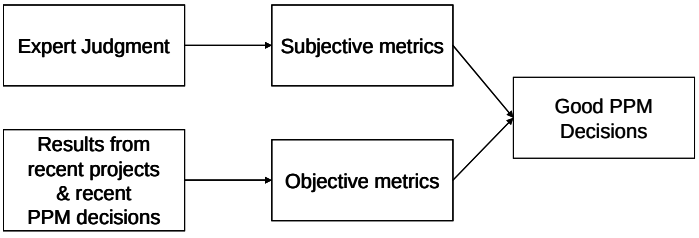
By Gary Summers, PH.D.
Email: Gary.Summers@StarDecision.com

Organizations use project portfolio management (PPM) to implement strategy, select projects, allocate resources and achieve goals. Unfortunately, all of the steps of PPM are difficult to perform well and fraught with uncertainty. Project evaluation is difficult because of the risks, uncertainty and complexities of projects. Project selection is difficult because one must manage risk while simultaneously satisfying financial and strategic goals. Resource allocation is difficult because each project uses multiple types of resources and these needs are unpredictable. Compounding these problems, PPM is risky. An organization's strategy and investment ride on its PPM decisions. With so much difficulty, uncertainty, and risk, an executive would be unwise to practice PPM without receiving feedback from his or her decisions.

Unfortunately, PPM lacks feedback, but to improve this situation I am developing PPM feedback metrics. Specifically, I am developing feedback metrics that support PPM in the following ways:

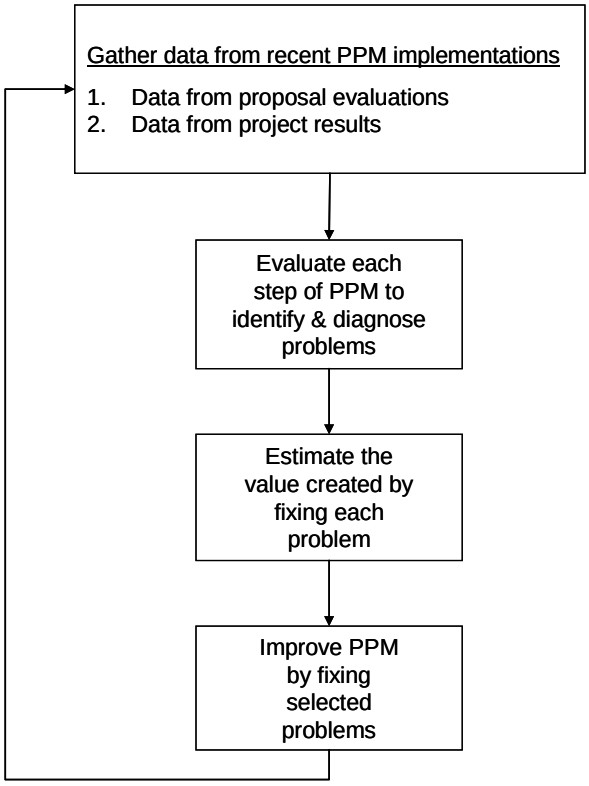
#1 OBJECTIVE METRICS: Current PPM metrics are subjective. They are developed from expert judgment, so they can suffer from biases, such as optimism. In contrast, feedback metrics are objective. They are developed by analyzing recent PPM results, so they measure a company's proven performance. When performing PPM, executives can benefit by using both types of metrics. Figure 1 illustrates how the two types of metrics can combine to improve PPM decisions.

FIGURE 1: How subjective and objective metrics combine to make good PPM decisions



#2 IMPROVEMENT: I am developing feedback metrics for evaluating each step of PPM. With these metrics you can improve PPM by using a data driven approach that is similar to Six Sigma. Figure 2 illustrates this process.

FIGURE 2: A data driven approach to improving PPM



Why Current PPM Lacks Feedback

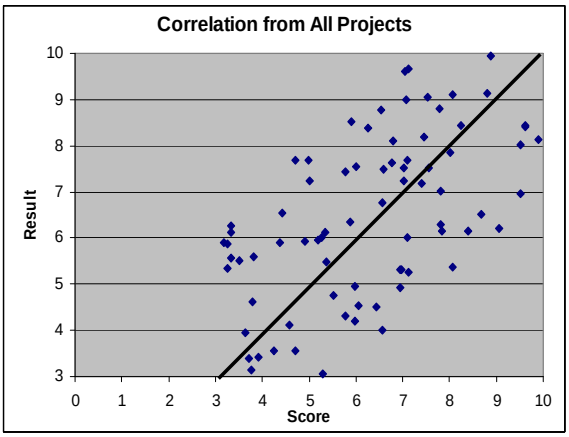
If PPM feedback is so valuable, why has no one previously developed feedback metrics for PPM? To answer this question, consider this true story. A pharmaceutical executive tried to evaluate his project scoring model by correlating project scores with project results. Figure 3 illustrates this approach. The chart on the left shows the results produced by this calculation when one has the scores and results of every project

proposal. As the figure shows, the correlation is 0.74, which implies the scoring model is excellent. Unfortunately, in PPM one does not have the results of every project proposal. One only learns the results of funded proposals, and generally, only the best proposals are funded. The chart on the right of Figure 3 depicts this situation, and it shows what happens when one estimates the correlation by using the partial sample. The calculation strongly underestimates the correlation. In fact, the executive who tried this approach obtained this result and wrongly concluded that his scoring model was worthless.

PPM only has results from a highly selective sample of project proposals. In statistics, this situation is called a ***missing data problem***. Creating unbiased feedback metrics requires overcoming the missing data problem, and the field of PPM has not previously addressed this issue.

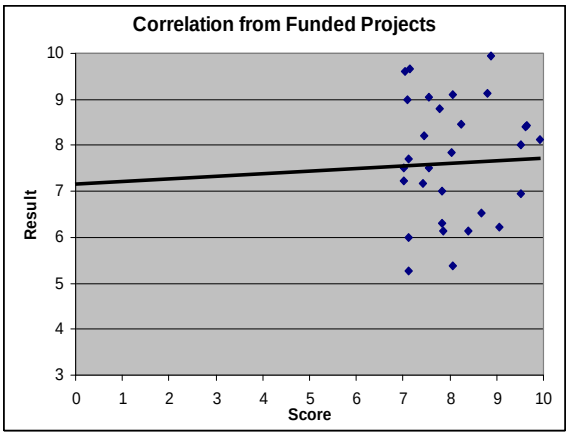
FIGURE 3: Correlating project scores with project results

LEFT CHART
results exist for all projects



Correlation = 0.74

RIGHT CHART
results exist only for the projects that have the highest scores



Correlation = 0.24

How to Produce PPM Feedback

Fortunately, statisticians have developed techniques for overcoming missing data problems, and by applying these techniques I am developing PPM feedback metrics. The analytical details are beyond the scope of this introduction, but the general approach is easily described. Figure 4 illustrates it. Data from project evaluations (decision inputs) and from project results (decision results) are analyzed with statistical techniques for missing data problems. These calculations produce feedback metrics.

As stated, to create feedback metrics you need information from project evaluations. You will have this information if you use PPM software or if your PPM process has a maturity of level 3 or higher. If you have a nascent PPM process, you may not have the data needed to create PPM feedback, but you can add this capability as you develop your PPM.

FIGURE 4:
How to produce PPM feedback metrics

FIGURE 5: Flowchart of PPM and PPM feedback metrics

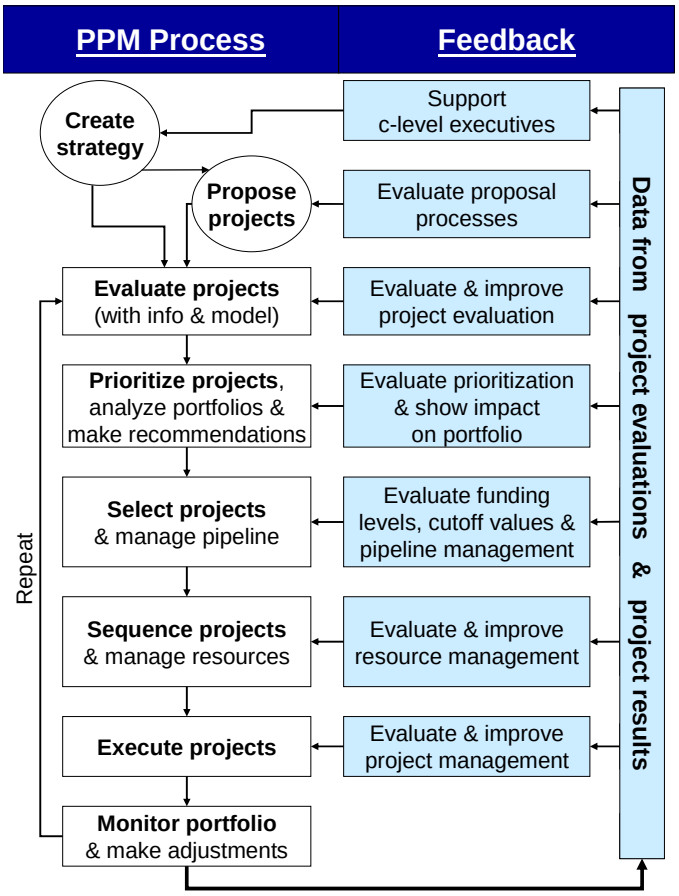


Figure 5 illustrates a PPM process that includes feedback. The left side of the flowchart illustrates a typical PPM process, and the steps on the right illustrate feedback. Data from project evaluations and project results are analyzed to provide feedback metrics for every step of PPM. This capability is a goal I am striving to reach.

Examples of PPM Feedback Metrics

To achieve this goal, I am creating multiple PPM feedback metrics. Most of these metrics are in the alpha stage of development, where I am testing them with simulated data. Other metrics are concepts that await development. To illustrate the potential of the metrics, I present some of them below. All of these metrics are illustrated with an example of a fictional printer company. This company has three product divisions: inkjet printers, laser printers and professional printing products. Each division is a strategic bucket in the company's PPM.

Metrics that Evaluate Strategic Buckets

A key step in PPM is evaluating a strategic bucket's capacity to achieve a company's goals. Fortunately, PPM feedback reveals a bucket's potential by documenting its recent performance. The next four metrics illustrate these measurements.

The Quality of Project Proposals

For each strategic bucket, PPM selects projects from a set of proposals. How good is the set of proposals? Specifically, consider the potential outcomes of proposals. Some proposals are destined to fail because of technology risk, market issues or competitors' actions. Other proposals will fail because they are too complex or because they fit poorly with a company's competencies. Because some proposals are likely to succeed while others are likely to fail, we can ask, "For each strategic bucket in PPM, what percent of project proposals have the potential to be successful projects?" Obviously, if 75% of proposals are likely to succeed, PPM starts from a much better position than if only 25% of proposals are likely to succeed.

According to my alpha tests, feedback metrics can measure the fraction of project proposals that can become successful projects. Figure 6 illustrates this metric for the fictional printer company. For each strategic bucket in its PPM, Figure 6 shows the percent of project proposals that are likely to succeed. Notice that the laser printer division presents PPM executives with a better set of choices than does the professional printing products division. The poor set of choices in the professional printing division may have a variety of causes. The market may be more competitive or professional printing technology may be immature and risky. Alternatively, the proposal processes (fuzzy front-end of the pipeline) for this division may need improvement.

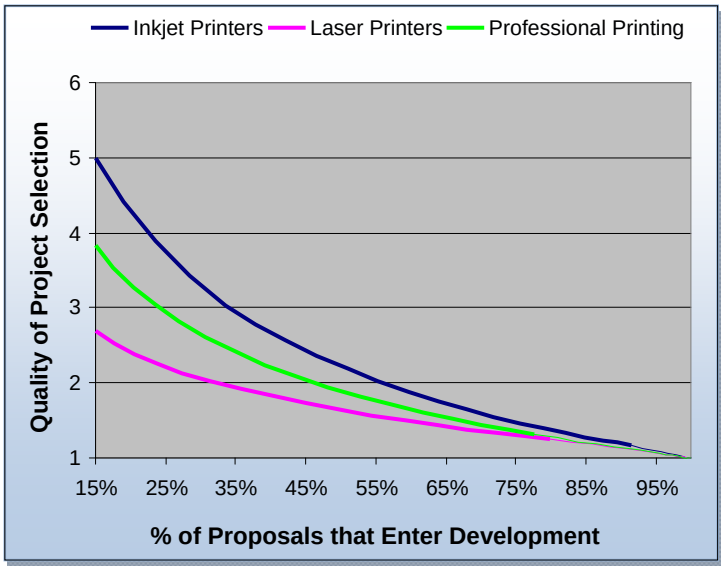
FIGURE 6:
Assessment of the proposals for each strategic bucket

Strategic Bucket	% of Proposals that Can Produce Successful Projects
Inkjet Printers	55%
Laser Printers	63%
Professional Printing Products	38%

The Quality of Project Selection

As revealed in Figure 6, if executives at the printer company fund every inkjet printer proposal, 55% of their projects will succeed. Accordingly, the project failure rate for this bucket will be 45%. If this failure rate is too high, executives can raise the success rate by funding fewer projects. Specifically, they can be selective and fund only those proposals that they deem most likely to succeed. If they follow this approach, what will be the new project success rate?

FIGURE 7:
The quality of project selection for each strategic bucket



The answer depends on the executives' quality of project selection, which is a metric that measures their ability to select the best project proposals. The quality of project selection depends on two factors: (1) the quality of project evaluations and (2) the number of projects that are funded.

The effect of the first factor is what you expect. With better project evaluations the executives are more likely to identify and fund the best project proposals, so better project evaluations increase the quality of project selection.

The effect of the second factor is not as obvious. If the executives fund only a few proposals, they can be highly discriminating. They will select only the top prospects, and although their portfolio will be small, the quality of their project selection will be high. If the executives fund more proposals, they cannot be as discriminating. The best prospects are already selected, so they must consider proposals that are more difficult to assess. While they will select many good projects, they may select some mediocre and poor projects as well. As a result, the quality of their project selection will decrease. Generally, the quality of project selection decreases as one selects more proposals.

I am developing a feedback metric that measures the quality of project selection for each strategic bucket in a portfolio. Figure 7 represents this feedback metric. Each curve represents the quality of project selection for a strategic bucket. For all of the buckets, the quality of project selection decreases as more projects are selected. Furthermore, a higher curve implies a higher quality of project selection for any size bucket. A higher curve indicates that a bucket has better project evaluations, while a lower curve indicates the opposite.

To understand the numerical values and how to use them in PPM, you must understand how Bayes' law governs project selection in PPM, stage-gate systems and pipelines. For an introduction to Bayes' law and PPM, see my paper, "Identify Projects with the Greatest Chance of Success," which is published in this newsletter.

How Much Value can a Bucket Create?

By using Bayes' law and the information in Figures 6 and 7 one can estimate the project success rate for each bucket. Figure 8 represents this feedback metric.

For some types of projects one can estimate the projects' net present value (NPV) and other financial statistics. For these cases, I am developing a metric that combines the financial estimates with Figure 8. The resulting metric estimates the financial results that a strategic bucket can produce. Continuing the printer example, Figure 9 illustrates this metric for each strategic bucket. It estimates the return on investment (ROI) for different levels of funding. Notice that the ROIs decline sharply as more projects are funded. The declines occur because project failures have a negative NPV and failing proposals constitute a significant fraction of the proposals. This situation is characteristic of the pharmaceutical industry, but it is not characteristic of IT portfolios. An IT portfolio ROI

decreases much more slowly as more projects are funded.

FIGURE 8: How the expected project success rate varies with the percent of proposals that are funded.

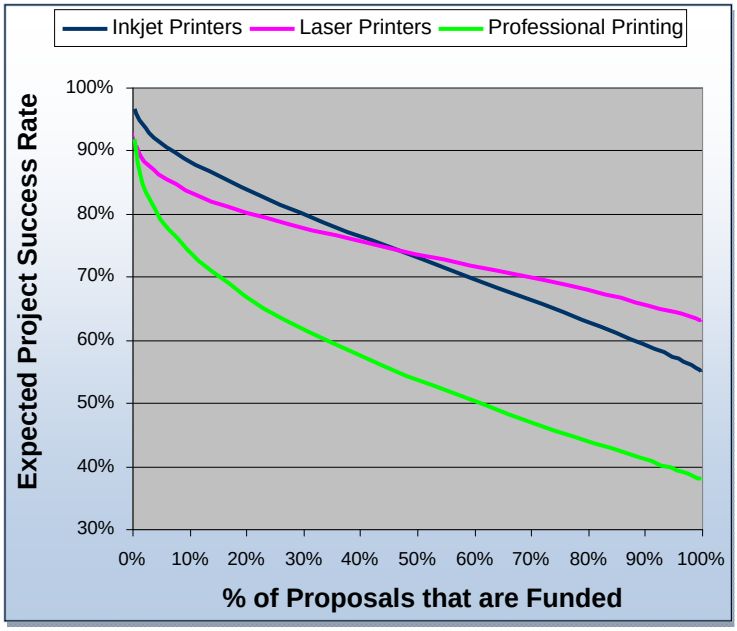


FIGURE 9: Expected ROI vs. Bucket Size.

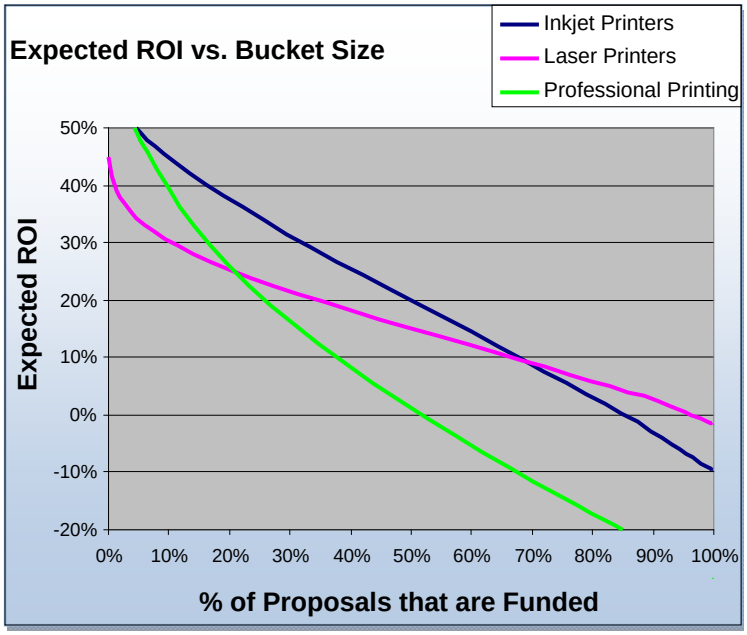


FIGURE 10: A project's probability of success as predicted by its score

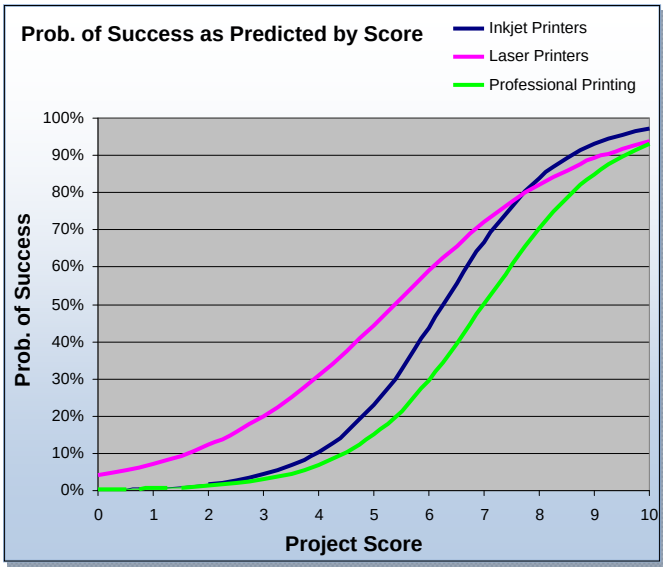
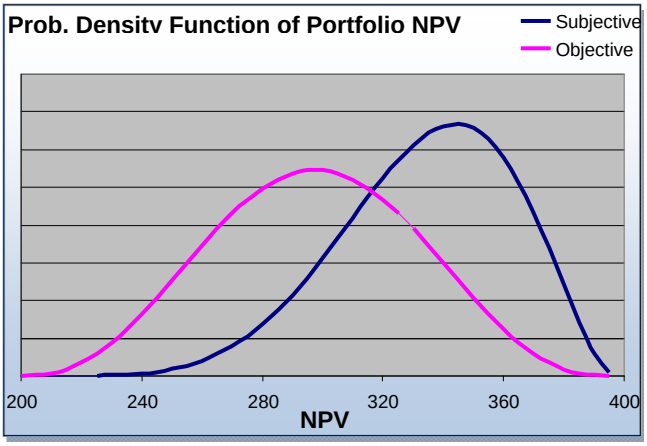


FIGURE 11: Estimated probability density functions for portfolio NPV



Metrics that Help You Design Portfolios

In addition to evaluating your strategic buckets, I am developing PPM feedback metrics that help you create portfolios. For example, an important variable in PPM is the probability that an individual project will succeed. In most PPM implementations this probability is estimated subjectively by experts. However, PPM feedback can estimate the probably of success from a project's evaluation, and the relationship is measured objectively from PPM results. Figure 10 illustrates this metric.

Continuing with our printing company, projects are evaluated with a scoring model that has a scale of zero to ten. For each strategic bucket, Figure 10 estimates a project's probability of success based on its score.

With these estimates, PPM executives can improve various PPM metrics. Figure 11 illustrates an example by showing the NPVs a portfolio of projects might achieve. The dark curve shows the NPVs that are predicted by subjective estimates of the projects' probabilities of success. The light curve shows the NPVs that are predicted when the projects' probabilities of success are estimated by using the objective data in Figure 10. Because subjective estimates tend to be optimistic, they tend to overestimate the NPV a portfolio might achieve.

Metrics for Improving PPM

Although these metrics are in the earliest stage of development, I am developing feedback metrics to evaluate each step of PPM. With these metrics you can identify and fix problems in each step. For example, Figure 12 represents an analysis I am developing for a scoring model that evaluates product development projects. It shows the optimal weights for the scoring model, which are the weights that maximize the correlation between project scores and project results. Notice that the optimal weight for the market attractiveness attribute is 0.05, which is very low.

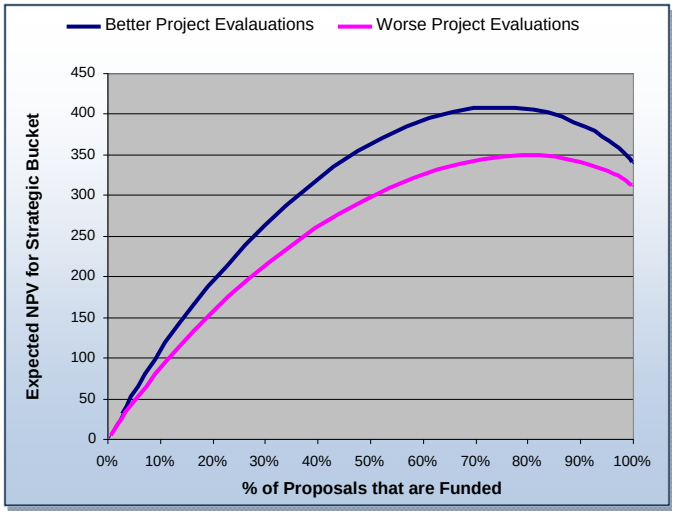
These are product development projects, so how can the market attractiveness attribute have such a low optimal weight? If market research is poor, the market attractiveness attribute will contain more noise than data. In this case, a small weight prevents the noise from corrupting the scoring model. The low weight for market attractiveness identifies this problem.

In addition to identifying problems, PPM feedback can estimate the value of fixing problems. Let's return to the example of the printer company. Suppose the company improves its evaluations of the proposals for laser printer products. Specifically, suppose the evaluations become as effective as those in the professional printing division. In Figure 7 the quality of project selection curve for laser printers will rise to be equal to the curve for professional printing. Figure 13 estimates the value created by this improvement.

FIGURE 12: Analysis of a scoring model

Attribute	Optimal Weight
Strategic Fit	0.23
Fit with core competencies	0.17
Market Attractiveness	0.05
Competitive Advantage	0.20
Technical Feasibility	0.16
Financial Reward	0.19

FIGURE 13: The expected NPV for a strategic bucket under two different conditions: better & worse project evaluations



Conclusion

This paper introduces my research to develop a new capability for PPM: ***the ability to analyze results and provide PPM executives with feedback***. The objective data that PPM will provide complements the current subjective metrics that drive PPM. Additionally, it will enable executives to improve PPM by using a data driven approach that is similar to Six Sigma. Best of all, the PPM feedback metrics I am developing can be added to your existing practices, so you can use them without changing your current PPM.

Identify Projects with the Greatest Chance of Success

How physics governs your project selection

By Gary Summers, PH.D.
Email: Gary.Summers@StarDecision.com

In project portfolio management (PPM), Stage-Gate® systems and pipelines, what decision creates the most value?* It is project selection. If you wish to successfully implement strategy and create more value, you must improve your project selection.

Fortunately, there is a powerful new tool for managing and improving your project selection. It is physics. Yes, that is right. Project selection is governed by a physical law, and if you understand this law, you can improve your project selection and achieve your business goals.

What is this law? Project selection is governed by Bayes' law, which is a simple equation from probability theory. This paper introduces Bayes' law to you, and it shows how Bayes' law governs project selection. Furthermore, the paper presents new PPM metrics that I am developing. These metrics are part of my research in PPM, and once this research is complete, you can use the new metrics to exploit Bayes' law and improve your portfolio, pipeline or stage-gate system.

Specifically, you can use the metrics to implement the following four-step process:

1. With the new metrics, measure the quality of your project proposals and the quality of your project selection.

2. With Bayes' law, estimate the capacity of your portfolio and pipeline to achieve your strategic and financial goals.

3. Design a plan that exploits your portfolio's limited capacity to produce results. Additionally, using Bayes' law, coordinate upstream and downstream decisions in your pipeline or stage-gate system.

4. Guided by the new metrics, expand your pipeline's capacity to produce results by improving your proposal processes and project selection.

5. Expand your pipeline's capacity to produce results by improving your proposal processes and project evaluations.

You will see this process below, but first let's learn the physics of project selection.

How Bayes' Law Governs Project Selection

What is the physics of project selection? To present the physics we must define some terms. In a stage-gate system, the term *proposals* refers to the projects that are flowing into a gate and the term *projects* refers to the projects that have been selected and are flowing out of the gate. In PPM, the term *proposal* refers to a project proposal that is being considered when a portfolio is being constructed. The term *project* refers to a proposal that has been selected to be part of the portfolio. Generally, the term *proposal* refers to a choice and the term *project* refers to a choice that has been selected.

Additionally, define two categories of projects: BETTER projects and WORSE projects. You can define the two categories in any way that suits your business. To illustrate some possibilities, consider a pharmaceutical company that is selecting compounds to send to clinical trials. The company can define BETTER projects (compounds) as projects that will pass phase I clinical trials and WORSE projects as those that will fail in phase I clinical trials. As another example, consider an IT department that is investing in new infrastructure projects. BETTER projects are those that create more value than maintenance investments (the opportunity cost), while WORSE projects are those that create less benefit than investing in maintenance. Whatever the definition, BETTER projects provide more value and are preferred to WORSE projects.

The definitions of BETTER and WORSE extend to proposals as well. A BETTER proposal is one that, if it is selected, will produce a BETTER project. A WORSE proposal is one that, if it is selected, will produce a WORSE project.

Why classify projects and proposals into two categories? Theoretically, one can classify projects into any number of categories, but a twofold classification is useful for two reasons. First, it provides the simplest illustration of Bayes' law and the physics of project selection. Second, a twofold classification can produce the new PPM metrics I am developing. These metrics will help you manage and improve your PPM, pipelines and stage-gate systems. You will see these metrics later in this paper.

FIGURE 1: A table that illustrates the outcomes of project selection

	Type of Proposal		Summary Data
	Better	Worse	
Fund Proposal	# Successful Projects (true-positive)	# Failed Projects (false-positive)	% Successful Projects
Cancel Proposal	# Missed Opportunity (false-negative)	# Correct Rejections (true-negative)	
Summary Data	# Better Proposals	# Worse Proposals	
	% Better Proposals		

Figure 1 is a table that illustrates key relationships in project selection. There are the two types of proposals: Better and Worse. There are two choices for each proposal: Fund and Cancel. There are four possible outcomes for each decision. Funding a BETTER proposal produces a successful project. Funding a WORSE proposal produces a failed project. Canceling a project can produce either a missed opportunity or a correct rejection.

Suppose you could review each decision and classify the result as one of the four outcomes. This analysis is not actually possible because you do not know if a canceled proposal is a missed opportunity or a correct rejection. However, to learn about project selection, assume you can classify each project selection decision by its outcome. After classifying each decision you could count the number of outcomes of each type.

With these counts, you can derive important information about the set of proposals that constitutes your choices. If you add the number of successful projects to the number of missed opportunities, you get the total number of BETTER proposals. Furthermore, because you know the total number of proposals, you can calculate the percent of proposals that are BETTER proposals.

This percent is an important number because it evaluates the quality of your proposal processes. Even though you cannot know the number of missed opportunities (see above), I am developing methods of analyzing your PPM results and estimating the percent of your proposals that are BETTER proposals. This metric will be particularly useful if you classify proposals into strategic buckets. With the new metric you could estimate the percent of BETTER proposals in each strategic bucket. You will see the new metric later in this paper.

Here are some ways of using the new metric with pharmaceutical PPM. If you classify proposals by therapeutic area, the metric will estimate the phase I success rate of the compounds identified by each therapeutic area. If you classify proposals by research technique (small molecules, combinatorial chemistry, etc.), the metric will estimate the phase I success rate of the compounds identified by each research technique. Finally, suppose you classify proposals into two groups: (a) proposals that arise from strategic initiatives and (2) proposals that arise from letting scientists pursue their own ideas. In this case, the metric will measure the phase I success rate of the research stimulated by each motivation. In total, in each of the aforementioned classifications, the new metric measures the productivity of research.

The percent of BETTER proposals is a metric that evaluates your choices. Let's consider a metric that measures the outcome of your project selection. Returning to Figure 1, if we divide the number of successful projects (true-positives) by the total number of funded projects, we obtain the project success rate for your portfolio. This number measures the quality of the projects in your portfolio.

We now have measures for the quality of your choices and the quality of your results. These numbers are related by the quality of your project selection. To illustrate this relationship, suppose that 30% of your proposals are BETTER proposals. Further suppose that you select proposals randomly, which is the lowest quality of project selection. In this case, the expected project success rate for your portfolio is 30%. Now suppose you introduce rudimentary project evaluation so that you have decent, but not great, project selection. Your project selection will be better than random, so the project success rate of your portfolio will be greater than 30%. If you improve your project evaluation further, the project success rate of your portfolio will be even higher.

These considerations show that project selection behaves according to the following qualitative relationship:

Quality of Your Proposals * Quality of Your Project Selection = Quality of the Projects in Your Portfolio or Pipeline

Bayes' law gives this relationship a quantitative form. If projects are classified into two categories, such as BETTER and WORSE, project selection is governed by the following equation:

$$\frac{P_{\text{Proposals}}}{1-P_{\text{Proposals}}} * QPS = \frac{P_{\text{Results}}}{1-P_{\text{Results}}}$$

Where:

- $P_{\text{Proposals}}$ is the fraction of your proposals that are BETTER proposals.
- P_{Results} is the fraction of your projects (selected proposals) that are BETTER projects.
- QPS is the quality of your project selection. It measures your ability to distinguish BETTER proposals from WORSE proposals. This variable has a more detailed mathematical form, but to simplify this introduction it is not described in this paper.

As you can see, $P_{\text{Proposals}}$ describes the quality of your proposals, QPS describes the quality of your project selection and P_{Results} describes the quality of your portfolio. Bayes' law relates these three factors. I am developing metrics that measure $P_{\text{Proposals}}$ and QPS, and once developed, you can use these metrics to evaluate and improve your PPM. However, before introducing the metrics, let's learn more about Bayes' law. Specifically, let's see how the quality of your proposals, $P_{\text{Proposals}}$, and the quality of your project selection, QPS, affect PPM.

The Quality of Your Proposals

To see how $P_{\text{Proposals}}$ affects project selection, suppose that you have fifty proposals to choose from. If forty-five of them are BETTER proposals, you may select proposals any way you wish and you will create a winning portfolio. In contrast, if only five of the proposals are BETTER ones, creating a winning portfolio will be extremely difficult. Likely, you will select multiple WORSE projects for each BETTER project you select. The costs of these WORSE projects will consume at least some of the financial benefits produced by the BETTER projects. Obviously, the quality of your proposals ($P_{\text{Proposals}}$) affects the difficulty of project selection and the value of your portfolio.

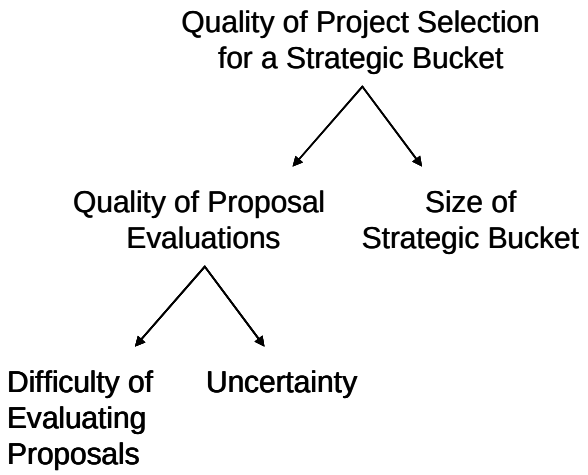
Unfortunately, most PPM practices ignore $P_{\text{Proposals}}$. These practices accept the available proposals as "givens" and then strive to create the best portfolio. This perspective is unfortunate. The difference in value between an average and an optimal portfolio can be

small compared to the value created by having better choices in the first place.

The Quality of Your Project Selection

The factor QPS represents the quality of your project selection. Technically, QPS is a ratio of conditional probabilities, and if you work for a company that makes diagnostic tests or equipment, your scientists already know about QPS. Just ask them about ROC curves and signal detection theory.

FIGURE 2: Factors that influence the quality of project selection (QPS)



Let's omit the technical details and describe QPS qualitatively. As figure 2 illustrates, the quality of project selection depends on two factors: (1) the quality of project evaluation and (2) the number of projects that are funded. Meanwhile, the quality of project evaluation depends upon numerous factors, including uncertainty and the difficulty of evaluating proposals.

The impact of the quality of project evaluation is what you would expect. With better project evaluations executives are more likely to fund BETTER projects, and they are less likely to fund WORSE projects. Better project evaluations increase the quality of project selection (QPS).

The impact of the number of projects one funds is not as obvious. If executives fund only a few proposals, they can be highly discriminating and select the proposals that are the most likely ones to be BETTER proposals. Their portfolio will be small, but the quality of their project selection will be high. As the executives fund more proposals, their situation changes. In addition to the most obvious choices, the executives must consider proposals that are more difficult to correctly classify as BETTER or WORSE. They will make mistakes by funding WORSE proposals and canceling BETTER ones. As a result, the quality of their project selection will decrease. As executives fund more projects, the quality of their project selection (QPS) decreases.

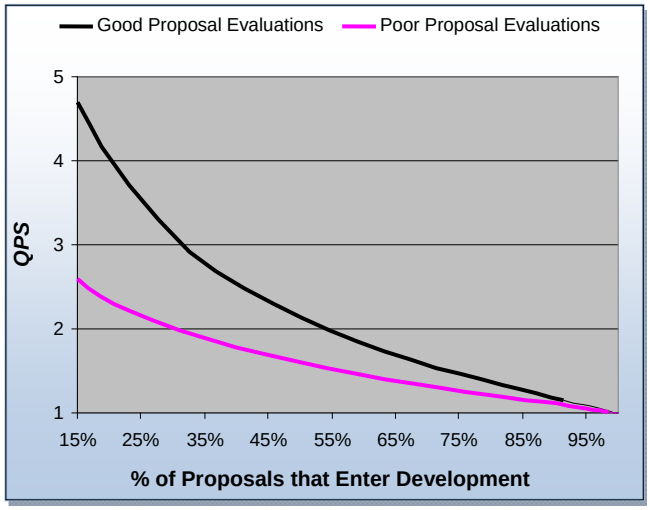
Figure 3 shows the impact of all of the factors that affect QPS. Each curve shows the values that QPS can achieve by varying the size of a strategic bucket. Consider the lower curve. As bucket size ranges from selecting 15% of proposals to selecting 100% of proposals, the value of QPS ranges from about 2.6 to 1. With the higher curve, QPS ranges from 4.6 to 1. In both cases, QPS decreases as a strategic bucket gets bigger and more proposals are selected. Meanwhile, the upper curve produces higher values of QPS for all bucket sizes. The higher curve represents better project evaluations, while the lower curve represents worse project evaluations.

With Figure 3 you can see how the quality of project evaluation affects your investment decisions. Suppose you wish for 80% of your projects to be successful ($P_{\text{Results}} = 80\%$). Furthermore, assume $P_{\text{Proposals}} = 66\%$. From Bayes' law, you can expect to achieve your goal if $QPS \geq 2$. Judging from the curves in Figure 3, if your project evaluations are poor (lower curve), you must select cautiously. You should fund only 30% of your proposals. If your project evaluations are good (higher curve) you can fund 55% of your proposals and still expect an 80% success rate for your projects.

Figure 3 is a metric that estimates the quality of your project selection for all sizes of a strategic bucket. I am developing and testing methods for analyzing your PPM results and producing this metric for each of your strategic buckets. When this research is complete you

can use this metric to improve your PPM, pipeline or stage-gate system, as described below

FIGURE 3: How uncertainty, the difficulty of project evaluation and bucket size affect the quality of project selection (QPS)



A Four-Step Process for Managing Your Portfolio & Pipeline

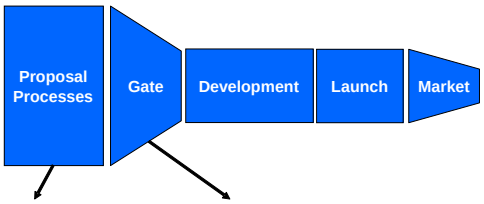
I am currently developing and testing methods of analyzing PPM results and estimating $P_{\text{Proposals}}$ and QPS (Figure 3) for each strategic bucket in a portfolio. These new metrics differ from other PPM metrics in three important ways. First, the new metrics provide information that current PPM metrics do not provide. Second, current PPM metrics reveal expectations, but the new metrics reveal your proven performance. Third, current PPM metrics are subjective, but the new metrics are objective. These qualities arise because, unlike current PPM metrics, the new metrics are not based on expert judgment. The new metrics come from analyzing PPM results; they are feedback metrics. In addition to $P_{\text{Proposals}}$ and QPS, I am developing numerous feedback metrics that will improve your PPM, pipelines and stage-gate systems. You can learn about these metrics from my paper titled, "Introducing PPM Feedback Metrics," which is published in this newsletter.

When my research is completed, you can use these metrics to exploit Bayes' law and improve your PPM, pipeline or stage-gate system. Specifically, you can use the four-step process that I illustrate below. For this illustration, consider the simple pipeline that is illustrated by Figure 4. The pipeline contains the product development projects of a company that makes printers. The company has three divisions, and each division is a strategic bucket in the company's pipeline. Project selection for each strategic bucket is governed by Bayes' law, so each bucket has its own values for $P_{\text{Proposals}}$, QPS and P_{Results}. The company defines BETTER projects as projects that succeed when launched in the market and WORSE projects as those that fail in the market. With these definitions, P_{Results} is the success rate of the company's product development projects.

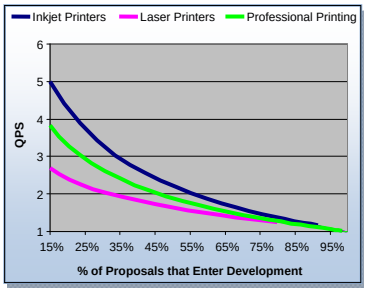
Step 1 Measure the quality of your proposals and the quality of your project selection

With the methods I am developing you can analyze your PPM results and estimate $P_{\text{Proposals}}$ and the QPS curve for each strategic bucket in your PPM or pipeline. Figure 4 illustrates these metrics for the printer company we are using as an example.

FIGURE 4: The quality of proposals and the quality of project selection for each strategic bucket in the pipeline.



Quality of Proposal Processes	
Strategic Bucket	$P_{\text{Proposals}}$
Inkjet printers	55%
Laser printers	63%
Professional printing	38%



Step 2 Estimate your pipeline's capacity to produce results

The information in Figure 4 measures the two factors on the left side of Bayes' law: $P_{\text{Proposals}}$ and QPS. With this information and Bayes law one can estimate the expected project success rate (P_{Results}) for all sizes of strategic buckets. Figure 5 presents the result. The most obvious quality is the inverse relationship between bucket size and success rate. As the company funds more proposals, the success rate of its projects falls. This relationship occurs because as a company selects more proposals QPS falls.

For some types of projects one can estimate the projects' NPVs. For these situations I am developing a metric that combines Figure 5 with financial data. Figure 6 illustrates my goal. For each of the printer company's strategic buckets, Figure 6 shows how a bucket's size affects its expected ROI. Notice that expected ROI decreases quickly as more proposals are funded. The decline is sharp because WORSE projects have negative NPVs and they constitute a significant fraction of the proposals. This situation is characteristic of pharmaceutical portfolios, but it is not characteristic of IT portfolios.

FIGURE 5: The expected success rate of projects as a function of the percent of proposals that are funded.

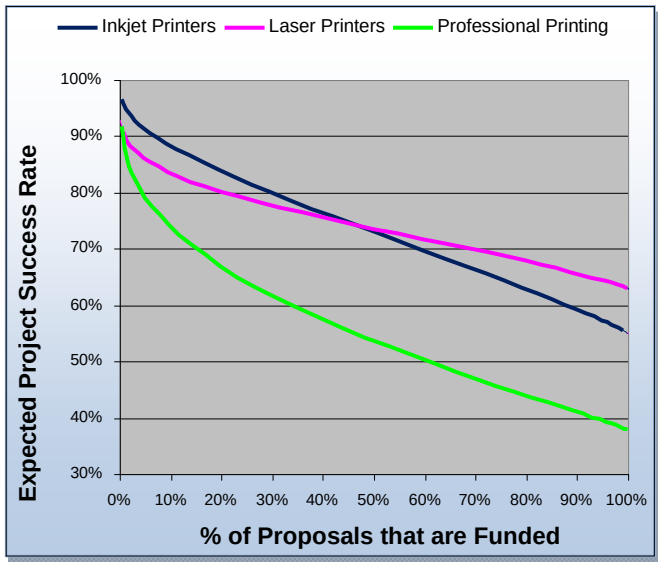
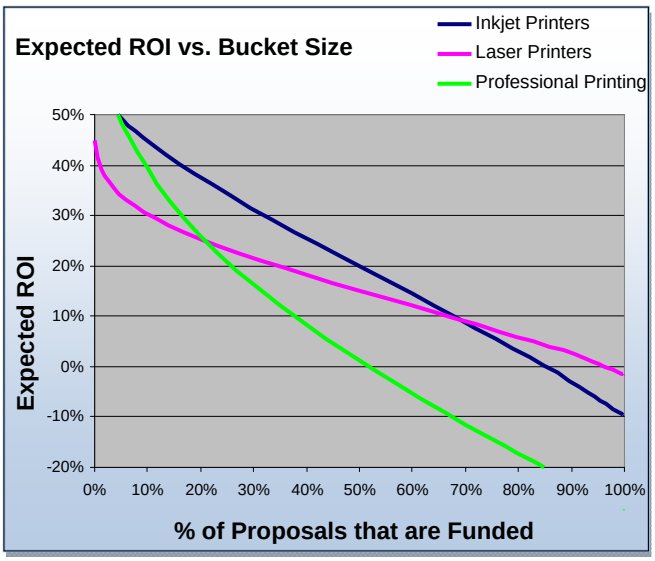


FIGURE 6: How expected ROI varies with the percent of proposals that are funded.



Step 3 Exploit your pipeline's limited capacity to produce results

Figures 5 and 6 show how Bayes' law limits the results that PPM can achieve. As more projects are funded, the quality of project selection (QPS) suffers. As a result, the quality of the projects in the portfolio (P_{Results}) decreases as well. This relationship limits a strategic bucket's capacity to achieve its financial and strategic goals.

To illustrate the limitation, assume the printing company has the following goals for each of its divisions:

- ***Strategic goal***: *receive 30% of revenues from new products.*
- ***Financial goal***: *achieve 20% ROI*.

For each strategic bucket, the company can estimate the number of proposals it should fund to achieve its strategic goals. Based on this value, Figures 5 and 6 estimate the resulting project success rate and the expected ROI for each strategic bucket. If an expected ROI is less than 20%, the company cannot

simultaneously achieve its strategic and financial goals for that bucket.
This information helps executives make decisions in three ways:

- *It prevents c-level executives from setting infeasible goals and asking PPM executives to create portfolios that are destined to fail.*
- *Executives can set the size of each strategic bucket to make the best of their situation. For example, they can invest in the most productive buckets.*
- *If a strategic bucket cannot fulfill the company's goals, executives know of the problem. If the bucket is strategically important, they can invest in improving the bucket's* $P_{\text{Proposals}}$ *and* QPS *.*

Once these decisions are made, executives can select projects and allocate resources by using their usual PPM practices.

In addition to analyzing strategic buckets, I am developing the above analysis so that it applies to other categories of projects. For example, in a pharmaceutical company one could evaluate the productivity of different approaches to discovery research. Likewise, one could compare the quality of ideas arising from various strategic initiatives to those arising from letting scientists pursue their own ideas.

Step 4 Expand your pipeline's capacity to produce results

The tradeoff between funding more projects and financial performance may be the tightest constraint on your pipeline – even tighter than resource constraints. You will want to relax this tradeoff so that you can fund more projects and still achieve your goals.

Bayes' law shows that there are only two strategies for relaxing the tradeoff: (1) improving the quality of project selection (to raise the QPS curve) and (2) improving the front-end of a pipeline (to raise $P_{\text{Proposals}}$). The information in Figure 4 shows you which strategy to pursue.

Consider the laser printer division. Its front-end processes are exceptional. Sixty-three percent of its proposals are BETTER ones ($P_{\text{Proposals}} = 63\%$). However, this wonderful result is wasted because its project selection is terrible. Its QPS curve is low. The laser printer division needs better project selection.

Now consider the professional printing division. It's QPS curve is decent, but not outstanding. However, the division is hobbled by its front-end. Only 38% of professional printing proposals are BETTER ones ($P_{\text{Proposals}} = 38\%$). The professional printing division must improve its front-end.

FIGURE 7: Analysis of a scoring model

Attribute	Optimal Weight
Strategic Fit	0.23
Fit with core competencies	0.17
Market Attractiveness	0.05
Competitive Advantage	0.20
Technical Feasibility	0.16
Financial Reward	0.19

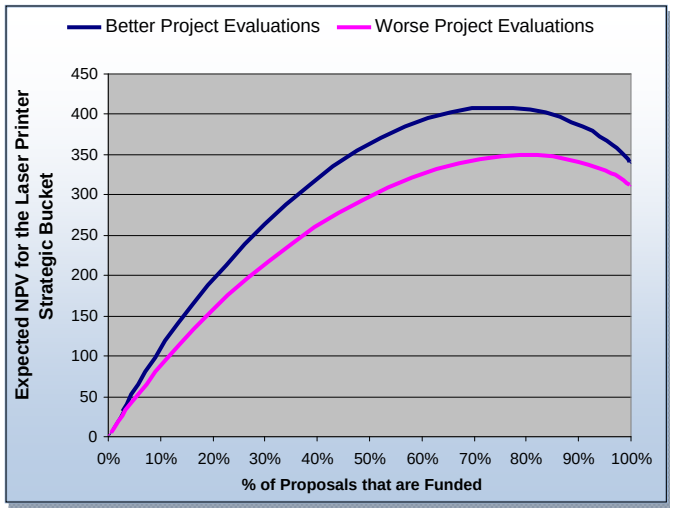
Once a problem is identified, executives need metrics that pinpoint the cause of the problem, and the new PPM feedback metrics can help them. Figure 7 shows the results of an analysis of the scoring model that the company uses in the laser printer division. The figure shows the optimal weights for the scoring model, which are the weights that maximize the correlation between project scores and project results.

The optimal weight for the market attractiveness attribute has a value of 0.05, which is very low. It is low for two reasons. First, it is the smallest weight. For new product development projects, market attractiveness should not be the least important attribute. Second, the small coefficient implies that market attractiveness only has a small effect on the value of a proposal. Again, for

new product development projects this should not be the case.
If market attractiveness is an important attribute for a new product development project, how can it have such a low optimal weight? If the market research is poor, the market attractiveness attribute will contain more noise than data. In this case, a small weight prevents this noise from corrupting the scoring model. The low weight for market attractiveness identifies this problem, and it is the reason for the poor project selection. To improve their evaluations of laser printer proposals, executives must perform better market research.

How much value is created by improving project selection? The feedback metrics estimate this value as well. Suppose the printer company improves its project evaluation in the laser printer division. Specifically, suppose the evaluations become as effective as those in the professional printing division. (In Figure 4 the QPS curve for laser printers rises to be equal to the curve for professional printing.) Figure 8 illustrates the feedback metric that estimates the value created by this improvement.

FIGURE 8: The expected NPV for a strategic bucket under 2 different conditions: better & worse project evaluations



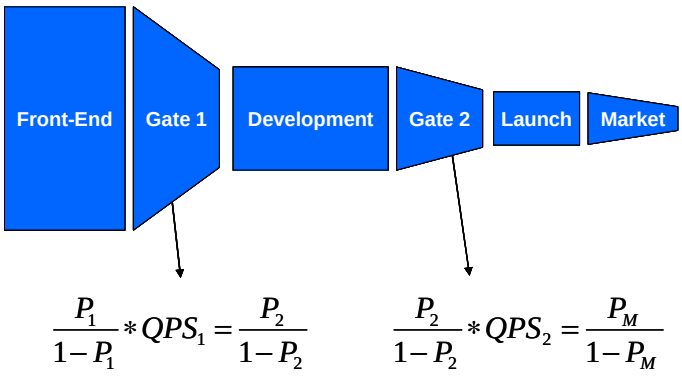
Coordinating a Pipeline Upstream & Downstream

From the introduction, recall that Step 3 has two parts. The first part is to exploit your portfolio's limited capacity to produce results, and we have considered that part. The second part is to coordinate the upstream and downstream decisions in your pipeline or stage-gate system. We consider that part here.

Figure 9 shows how Bayes' law governs pipelines and stage-gate systems. It depicts a stage-gate system that has two selection gates. Starting from the left side of the figure, the front-end produces proposals that are evaluated at Gate 1. A fraction P_1 of these proposals are BETTER proposals, meaning that they will produce successful products if they are funded. After evaluating all of the proposals, a portion of them are advanced to development, and of these projects, a fraction $P_2 > P_1$ are BETTER projects. After development, the projects are reviewed again at Gate 2, and a portion of them are launched into the market. Of the projects entering the market, a fraction P_M become successful products.

The attrition at Gate 1, attrition at Gate 2 and success rate at the end of the stage-gate system (P_M) are all related by Bayes' law. Let's look at these relationships, starting at the back-end of the pipeline. The project success rate for market launches is P_M . Obviously, executives want P_M to be as high as possible. How can executives raise P_M ? They can increase P_M by being more selective at Gate 2. Unfortunately, this approach raises Gate 2's attrition rate, which is undesirable.

FIGURE 9: A pipeline with two selection gates



Fortunately, there is a way of increasing P_M without increasing Gate 2's attrition rate. If P_2 is high, most of

the projects arriving at Gate 2 are BETTER projects. Gate 2 can advance most of these projects and P_M will still be high. To implement this strategy, executives must be more selective at Gate 1. Being more selective at Gate 1 increases P_2.

Unfortunately, this strategy has a negative aspect as well. Being selective at Gate 1 raises Gate 1's attrition rate and reduces pipeline throughput. In fact, Bayes' law creates a tradeoff between pipeline throughput and downstream attrition rates. This trade-off can be the tightest constraint on the pipeline, even tighter than resource constraints. When performing PPM or selecting projects at a gate an executive must manage this tradeoff and make the best compromise for his or her company.

Notice how one strategy for filling a pipeline manages the tradeoff poorly. If a pipeline is producing few successful products, executives may send more proposals thought Gate 1. While this action fills the system with projects, it lowers P_2 and thereby increases late stage attrition.

Is there a way to increase the throughput of a pipeline without increasing downstream attrition rates? According to Bayes' law you can achieve this result by improving the front-end (to increase P_1) or improving project selection at Gate 1 (to raise QPS_1). Notice how pipeline problems, even if they occur downstream, are fixed upstream. This property of pipelines is another reason for using the metrics illustrated by Figures 4 & 5.

Conclusion

In PPM, pipelines and stage-gate systems Bayes' law governs project selection. Stated qualitatively, Bayes' law imposes the following relationship: the quality of your proposals multiplied the quality of your project selection equals the quality of the projects in your portfolio.

Additionally, the first two variables of Bayes' law affect PPM in the following ways:

- The quality of your proposals (choices) affects the difficulty and value created by PPM.
- The quality of your project selection creates a trade-off. As you select more projects the quality of your project selection decreases.

The trade-off causes conflicts in PPM and pipelines. Generally, funding more proposals reduces your project success rate and thereby reduces your financial performance (at least in the short-term). You can manage this trade-off by adjusting the sizes of your strategic buckets, but the best strategy for managing this trade-off is to relax it. You can relax the trade-off by improving your proposals and project selection.

Knowing these relationships is important, but Bayes' law becomes powerful knowledge when you can measure the quality of your proposals and the quality of your project selection. I am developing these metrics, and with them you can evaluate you proposals, evaluate your project selection and see the impact on each strategic bucket's productivity. Furthermore, with the additional metrics I am developing, you can diagnose problems with your proposal processes and project evaluation models. Once you diagnose problems, you can fix them and thereby improve your PPM, pipeline or stage-gate system.

* Stage-Gate® is a registered trademark of the Product Development Institute Inc.

How to Prevent M&A Heartburn

By Dorene Lynch, Greg Kain and Alvin Doss, Jr.
Email: dlynch@ipmcinc.com
Originally Published in Scrip World Pharmaceutical News on March 26, 2010

Many champions of the pharmaceutical industry achieved scale and global reach through mergers and acquisitions. Indeed, the M&A remains a robust strategy for companies of all sizes looking for innovation, greater efficiencies or commercial advantage. Yet the integration of separate organizations is fraught with challenges that can undermine the very drivers for doing the deal, explain Dorene Lynch, Greg Kain and Alvin Doss, Jr.

There is a lot of hunger on the pharmaceutical scene. Big firms are gobbling up their competitors and cash-starved start-ups are on the hunt for peckish suitors. M&A deals surged in 2009, with the top-15 transactions alone valued at more than $180 billion.[1] But while snapping up a tasty morsel may satisfy at the time, it may cause queasiness shortly thereafter.

According to the Harvard Business School, "more than two-thirds of transactions that fail do so at the execution stage."[2] Integrating technologies, products, processes and staff is a hugely complex activity fraught with hidden pitfalls, which may not be top of mind when dealmakers are toasting a freshly signed contract. Without a smooth transition, timelines can slip, the rate of innovation can slow and millions of dollars may be lost in needless redundancy or missed opportunities.

TASTY TARGET: But acquired organization can be difficult to digest

A well-ordered process

Managing the integration process effectively requires exclusive dedication and project management expertise. One common mistake is to make integration management an "add-on" to an employee's regular responsibilities. That is a recipe for failure. A successful integration requires thousands of interdependent activities to be organized and driven, often within a tight timeframe. One error can affect many activities further down a complex, interrelated chain.

Box 1: Why integrations falter

Many factors can cause post-merger integrations to go off the rails, including:

- The integration leader having the wrong skill set/competing duties;
- Insufficient planning, oversight and communication;
- Employees being distracted or waiting for the "other shoe to drop"; and
- Problems and conflicts being allowed to fester.

It is nearly impossible for someone to perform their day job, as well as lead a flawless integration, without making mistakes and stepping on other people's toes. As one hapless "civilian" related about her assignment as integration leader for a merger between two pharmaceutical behemoths: "For me, it was brute force and schmoozing and persuading and cajoling and begging people to do their part in order to get things done."

Conversely, a trained project manager, who is dedicated solely to the task at hand, orchestrates an integration using a well-ordered process coupled with honed

Box 2: The right skills for the job

A management consulting firm knows how to structure a merger financially. That is not the same as knowing how to plan and manage the daily on-the-ground activities required to push two business units together – particularly when anxieties abound and corporate cultures clash.
Project management, on the other hand, is about how to get from "here" to "there" the best way possible. An effective project manager possesses both hard and soft skills: excellent organizational and business acumen, as well as the ability to generate employee trust and buy-in under stressful conditions.

An effective project manager is:

- An exceptional facilitator and communicator;
- Viewed as unbiased and impartial;
- Highly organized with acute attention to detail;
- Disciplined about process, schedules & deadlines; and
- Able to lead without explicit authority.

Box 3: Merger motivations

Strategy-driven mergers are focused on:

- Innovation – does the acquirer need a fatter pipeline?
- Commercial drivers – does it need more marketing muscle or better distribution channels?
- Operations – does it need more capacity or specialized equipment?

facilitation skills. The project manager will:

- Identify every person who needs to be involved;
- Generate buy-in up front to create a cohesive team;
- Plan who is doing what and when, within and across functions;
- Drive plan execution, closing the loop on each activity every day;
- Facilitate problem-solving quickly and objectively; and
- Track and communicate progress, transparently and frequently.

Assuming they are equally skilled, both internal and external project managers will be equipped to lead an integration project. However, an internal project manager will often confront additional challenges.

Mergers are deeply unsettling. After such a deal is announced, employees become paralyzed for a time while they wait to hear how the nature of their job will change, who their new boss will be, if they will have to relocate – or worse. An internal project manager may be automatically perceived as taking the side of the legacy company. Trust may be harder to win, yet it is critical to enlisting the co-operation necessary to harmonize complex processes or to move operations physically. Staff may not share information openly or easily, especially if they feel their own positions are in flux or at risk. An "us versus them" mindset may be harder for an insider to dispel.

Integration strategy

The best integration path will vary from one merger to the next. M&As generally fall into one of two categories: strategy-driven deals or cost-driven ones. Even if there is a mix of the two, one motive usually predominates. Strategy-driven mergers usually center around the need for innovation, new commercial channels or expanded/complementary operating capabilities, while cost-driven M&As are prompted by the need for greater efficiencies.

While a swift integration is desired in all cases, strategy-driven mergers require more delicacy and sometimes more time. If one firm has acquired another for its promising new RNAi platform, to disrupt ongoing research by reorganizing teams and sensitive equipment in the name of efficiency may undermine the very purpose of the deal.

For cost-driven mergers, however, timely transition is of the essence. Otherwise, the efficiencies that propelled the deal will turn into double burdens.

The case of the financial squeeze

Post-acquisition, a large biomanufacturer had just six months to complete the integration of five separate financial systems to meet its CEO's promises to Wall Street. Not only did all five systems have to be rolled into the firm's primary system, the primary system itself was to be migrated from one software platform to another, according to pre-merger plans.

What makes this so complex?

- **Volume of data.** A customer orders an assay kit. An incubator is returned for refund. An employee buys a box of rubber bands. For a global company, many thousands of such transactions occur every day at sites around the world. Multiply daily totals by months or years, add the transactions contributed by merger partners, and the volume of data to blend becomes mountainous.

- **Mismatched transaction categories.** It would be convenient if all organizations classified maintenance as "maintenance." But what if one company calls it "maintenance" and the other calls it "repairs"? Or if it lumps maintenance under "office expenses," along with stationery? Merging records at face value will lead to data gone haywire – often discovered in a panic at the eleventh hour, when there is little time to trace and fix errors. Accurate consolidation requires the identification of incongruities, the creation of a single classification system and the re-filing of each transaction into its new "home."

- **Different reporting schedules.** One firm may report transactions on the first of every month, and the other on the 15th, adding yet another dimension to records reconciliation. Each firm may have had a business reason for its choice of closing date, to be considered before creating a new reporting calendar.

The project management approach

- **Big picture first.** Instead of scrambling to get a jump on the job, the project manager will step back to take the broad view: What do we need to accomplish, and how will we do it? What issues might we encounter, and how can we overcome them? Where are our constraints? Do we have enough accountants to analyze the data? Enough IT personnel to execute the transfers?

- **A deliberate process.** The project manager does not have the answers. His or her core competency is being able to ask the right questions of the finance team, IT, the tax department and other subject matter experts within the merging firms, and then determine the requirements of the integration program. That becomes the base upon which to build a robust plan, which the project manager drives day by day, trouble-shooting along the way. Cross-functional sub-teams look to the project manager as both team-mate and welcome taskmaster.

In addition to producing a higher-quality result, this ordered approach speeds up the project by closing gaps and minimizing mistakes and repetition of work. The biomanufacturer was able to meet its consolidation deadline, including a full-scale system migration – to the satisfaction of both the firm's CEO and its investors.

The case of the monster move

Two biopharmaceutical companies merged and then sought to consolidate their research operations. The task was immense, requiring the relocation of hundreds of scientists across two continents, along with 500 pieces of equipment. The stakes were high: the success of numerous development projects depended upon the transfer of technologies without disrupting ongoing research.

What makes this so complex?

- **Details, details.** From autoclaves to analyzers, paint to plumbing, everything the new labs would need had to be identified, catalogued, moved or procured. Meanwhile, lab design had to fit the scientists' specific space and technical needs.

- **The human factor.** What might seem a complex yet clear-cut task was fraught with emotion that threatened to undermine the project. "People didn't know if they would have a job the next week," said the project manager. "We needed the scientists' input, but they were understandably distracted." For those whose positions were safe, there was deep pessimism about whether management would listen to their ideas for lab design. Pessimism translated into apathy.

The project management approach

- **In-depth coordination.** Organizing the move itself, including its myriad details, was a three-month effort. A 67-page data worksheet listed every piece of equipment that could be needed at the site, as well as where each should be placed, along with choices for ventilation, power, lighting, flooring and other environmental necessities. This extensive up-front work ensured that the research team could continue their work unabated following the move.

- **A personal connection.** Ensuring that emotional turbulence didn't derail the effort took an entirely different set of skills. Empathy and understanding played a big role in enlisting co-operation. One project manager said: "I tried to take the burden off people. I told them I would do the heavy lifting and was not asking that they do this job on top of their existing ones, especially while they were uncertain about their futures. 'Just point me in the right direction, and provide some confirmation on the back end.' I had many dinners with people. I got to know them as co-workers and friends. They knew I really wanted to understand. And that went a long way."

Risk management served as an effective tool for defusing frustration

- **Objective risk management.** Risk management served as an effective tool for defusing frustration. Scientists wanted corridors built between labs to store the gases they used for experiments. The corridors would free up lab space and enable service workers to replenish the gas without interrupting research activities. Management, the scientists assumed, would reject their request for budgetary reasons, generating an "us versus them" mentality.

To jump-start a resolution, the project manager facilitated a contingency-planning session. The scientists would recommend to management that every lab get a corridor – but they would have a scaled-back proposal as Plan B. Who needed the corridors most, and why? It turned out that some labs used gas every day, while others only once a week. Some experiments required absolutely no disturbance, while others were less sensitive. The answer quickly became clear. An objective exploration enabled everyone to be "heard," and practical, consensus-driven solutions to be found.

The case of the document dilemma

A pharmaceutical giant bought a smaller firm for its attractive product portfolio. Before it could benefit from its purchase, the firm had to integrate hundreds of thousands of pages of the acquired company's regulatory documents into its own document system.

What makes this so complex?

- **Document structure.** As was soon discovered, the documents were extremely difficult to file. The purchaser had assumed, wrongly, that the acquired company had organized its regulatory repository into component parts for each drug: clinical, non-clinical, CMC and other data sections gleaned from years of research. (To compile a new drug application, for example, the submissions group would bundle the requisite sections into one comprehensive package.) If that had been the case, migrating one repository into the other would have been relatively simple. Instead, the acquired firm's repository consisted almost exclusively of gigantic PDFs – the unwieldy "end product" rather than

its sortable components. There were various individual sections alongside the PDFs, but they were red herrings: obsolete or incomplete tracts that were irrelevant and unusable.

The project management approach

- *Teamwork and accountability.* The project manager started by getting the right regulatory and IT experts on board to fracture, sift through and sort the "gold" embedded throughout those PDFs. The keys to success were securing realistic, hard-and-fast commitments from each individual on the team; setting targets for defining and executing the migration process, step by step; and meeting regularly to problem-solve. The project dashboard, which was shared with senior management, was an important tool for charting progress against the baseline schedule – and ensuring accountability. It revealed areas of risk, and served as a tacit motivator to keep the project on track. In the end, the team migrated more than 11,000 documents successfully to the "home" repository within their six-month deadline.

The project manager summed it up this way, which applies not just to this but to all integration efforts: "When we play it by ear, we make a decision and hope for the best. By applying a process, we can better see—and hit—our target. "

Throw the antacids away.

Authors

Dorene Lynch is a business development executive at Integrated Project Management Company. Greg Kain and Alvin Doss, Jr are both project planning and execution managers at the firm. Errol Jones, another project planning and execution manager, and Alex Kamilewicz, project manager, also contributed to this article. Email: dlynch@ipmcinc.com.

References

1. http://www.currentpartnering.com/scorecard/manda2009 | 2. http://hbswk.hbs.edu/archive/5271.html.

IMPORTANT NOTICE

Claim Your BioPharmaPM PDUs Online

By: Eric Morfin
Email: PMpharma@gmail.com

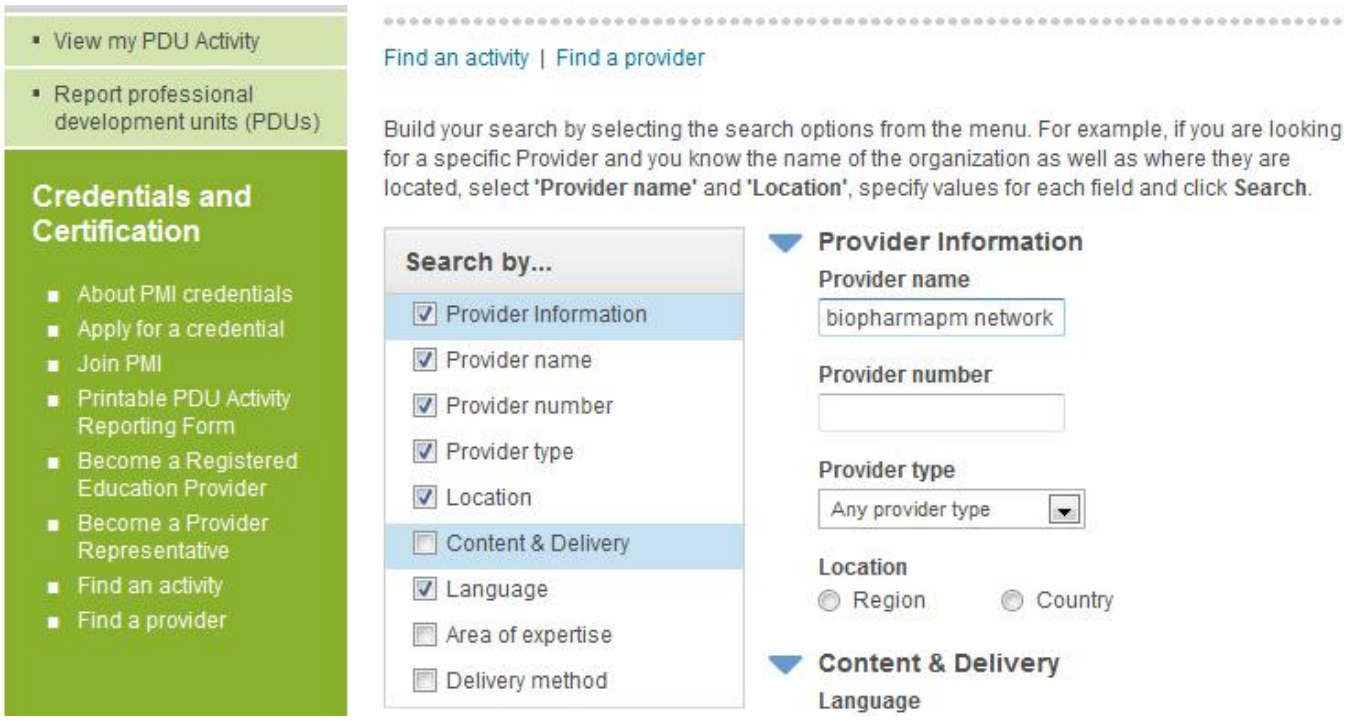
Dear BPPM Members,

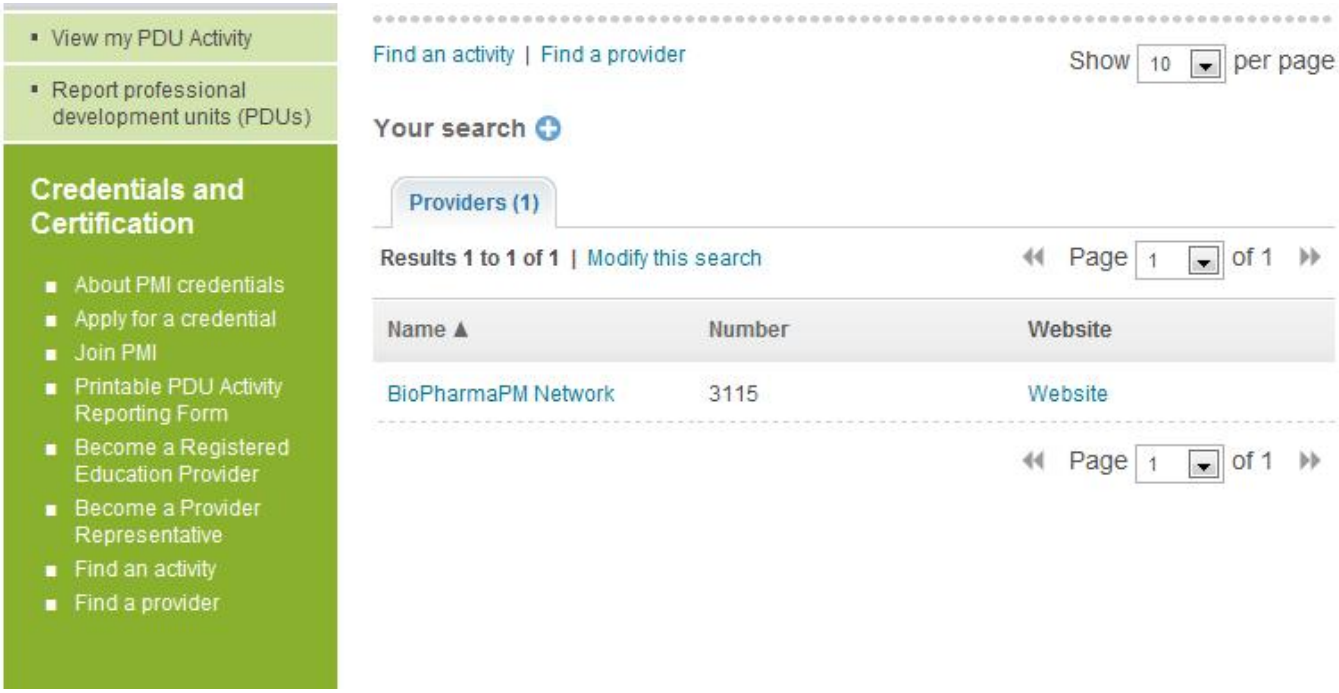
Most of our local events have been uploaded in the PMI database. You can now view them and claim PDUs for the events you are attending. We will soon publish a comprehensive step by step handbook for claiming PDUs. This handbook will be available under the "members only section" of our website.
If you have not renewed your membership or if you have attended our local meetings without registering, you may want to ensure your membership is active. Only members in good standing of their $40 annual membership fee will be able to claim PDUs.

Here is some preliminary information:
When attending a local meeting, please make sure to write your name and email on the meeting attendance list.
Then, after the meeting, go to ***www.pmi.org*** to search for your event and claim PDUs. Regular local events are worth 2 PDUs with other special events worth more (the number of PDUs depends on the individual event).
That's it! The process is simple.

Under ***www.pmi.org***, you can find our organization by searching for "BioPharmaPM Network". We are a registered education provider and the associated PDUs are classified as category 3 PDUs.

The screen shots below should help you visualize the process of claiming your PDUs.


View my PDU Activity
Report professional development units (PDUs)
Credentials and Certification
About PMI credentials
Apply for a credential
Join PMI
Printable PDU Activity Reporting Form
Become a Registered Education Provider
Become a Provider Representative
Find an activity
Find a provider
Find an activity | Find a provider
Build your search by selecting the search options from the menu. For example, if you are looking for a specific Provider and you know the name of the organization as well as where they are located, select 'Provider name' and 'Location', specify values for each field and click Search.
Search by...
Provider Information
Provider name
Provider number
Provider type
Location
Content & Delivery
Language
Area of expertise
Delivery method
Provider Information
Provider name
biopharmapm network
Provider number
Provider type
Any provider type
Location
Region
Country
Content & Delivery
Language


View my PDU Activity
Report professional development units (PDUs)
Credentials and Certification
About PMI credentials
Apply for a credential
Join PMI
Printable PDU Activity Reporting Form
Become a Registered Education Provider
Become a Provider Representative
Find an activity
Find a provider
Find an activity | Find a provider
Show 10 per page
Your search
Providers (1)
Results 1 to 1 of 1 | Modify this search
Page 1 of 1
Name ▲
Number
Website
BioPharmaPM Network
3115
Website
Page 1 of 1

- View my PDU Activity
- Report professional development units (PDUs)

Credentials and Certification

- About PMI credentials
- Apply for a credential
- Join PMI
- Printable PDU Activity Reporting Form
- Become a Registered Education Provider
- Become a Provider Representative
- Find an activity
- Find a provider

Description

BiopharmaPM is a non-profit professional organization that serves seasoned projected managers at large pharmaceutical companies, VP PMs at small biotechs, project coordinators at medical device companies and CPOs. Scientists, hiring managers and project managers will be educated about new developments in the industry, the drug development and regulatory process through BioPharmaPM. BiopharmaPM provides a forum for credibility and recognition of project management in the biotech, pharmaceutical and medical device community.

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Website
http://www.biopharmapm.org/

College/University
No

Provider type
Global Provider

Organization type
Professional Association

BIOPHARMAPM

Provider ID
3115

Language
English

Delivery method
Traditional Classroom
Web-based real-time instruction

Area of expertise
01 Aerospace & Defense
Automation Systems
Communications
22 Consulting
03 Design-Procurement-Construction
04 Diversity
23 E-Business
05 Education & Training
06 Environmental Mgmt
07 Financial Services
20 Government
Healthcare
Human Resources
09 Information Systems
25 International Development
08 IT & Telecom
10 Manufacturing
11 Marketing & Sales
26 Metrics
12 New Product Development
13 Oil, Gas, Petrochemical
Performance Management
14 Pharmaceutical
PMO

Then, you can look at the list of events that have been approved for PDUs purposes.

Credentials and Certification

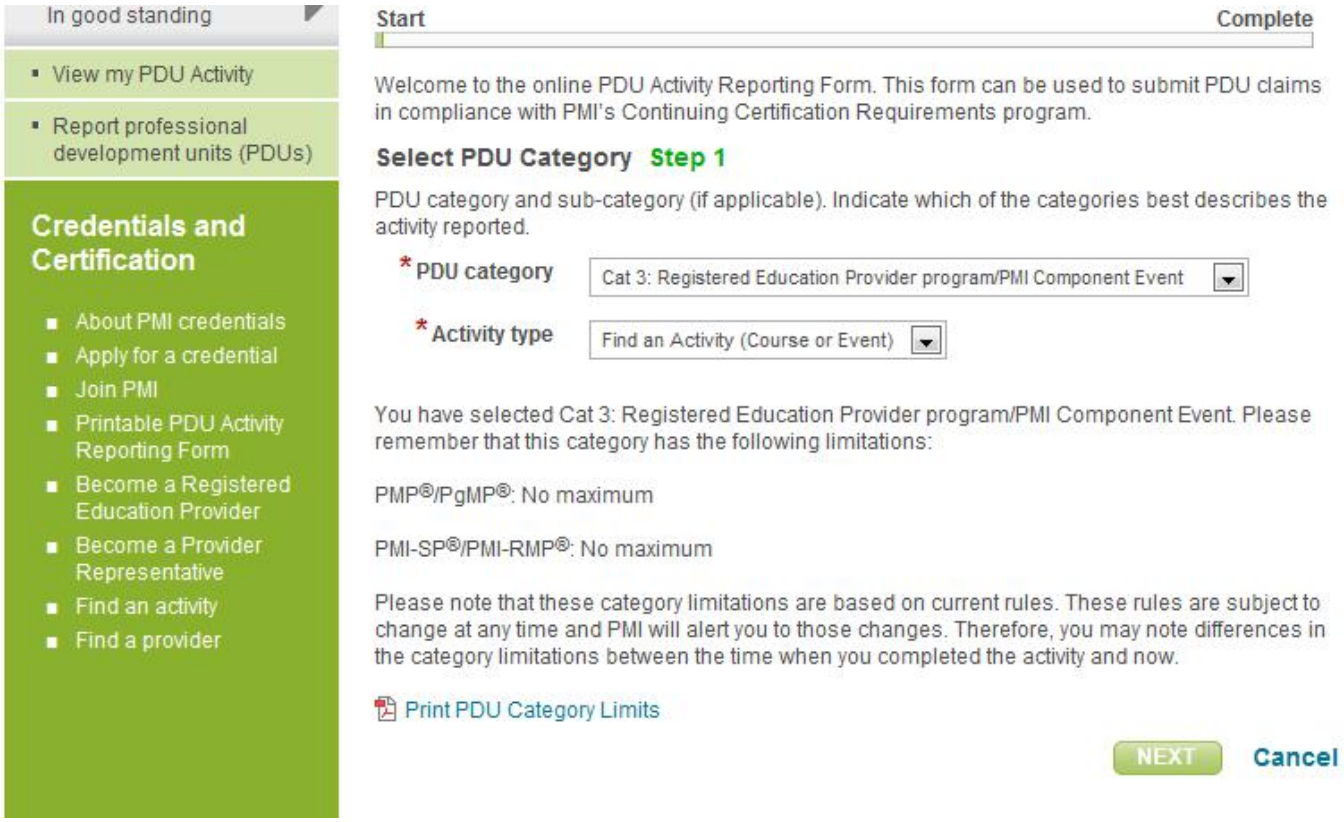
- About PMI credentials
- Apply for a credential
- Join PMI
- Printable PDU Activity Reporting Form
- Become a Registered Education Provider
- Become a Provider Representative
- Find an activity
- Find a provider

Activities (59)

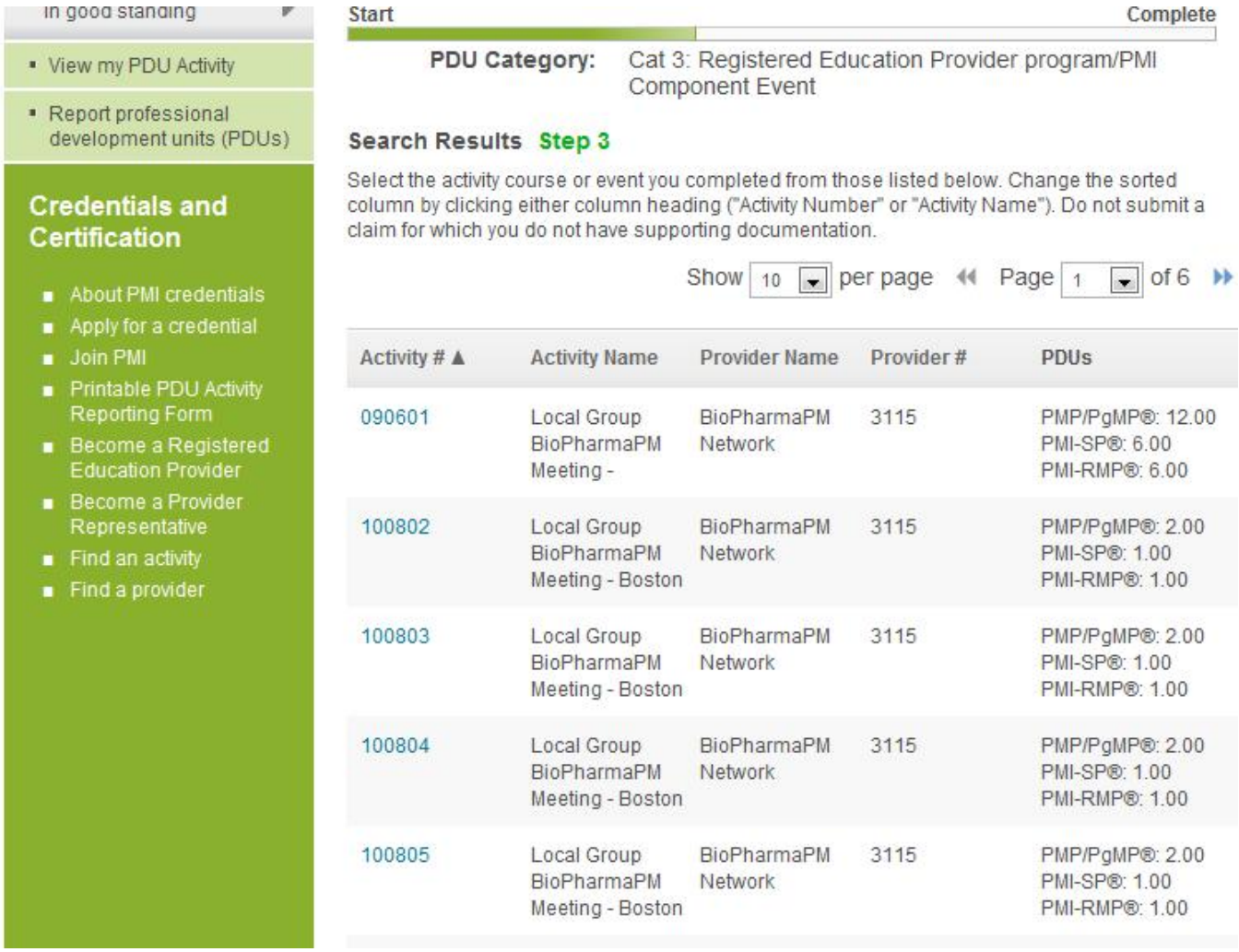
Results 1 to 10 of 59 | Modify this search Page 1 of 6

Activity #	Title ▲	Provider	Delivery Method
090601	Local Group BioPharmaPM Meeting -	BioPharmaPM Network	Web-based real-time instruction
100802	Local Group BioPharmaPM Meeting - Boston	BioPharmaPM Network	Web-based real-time instruction
100803	Local Group BioPharmaPM Meeting - Boston	BioPharmaPM Network	Web-based real-time instruction
100804	Local Group BioPharmaPM Meeting - Boston	BioPharmaPM Network	Web-based real-time instruction
100805	Local Group BioPharmaPM Meeting - Boston	BioPharmaPM Network	Web-based real-time instruction
100806	Local Group BioPharmaPM Meeting - Boston	BioPharmaPM Network	Web-based real-time instruction
100807	Local Group BioPharmaPM Meeting	BioPharmaPM Network	Web-based real-time instruction

Once ready to claim PDUs, go back to the home page and click on "Report PDUs" Select Category 3 and look for the specific event you attended.

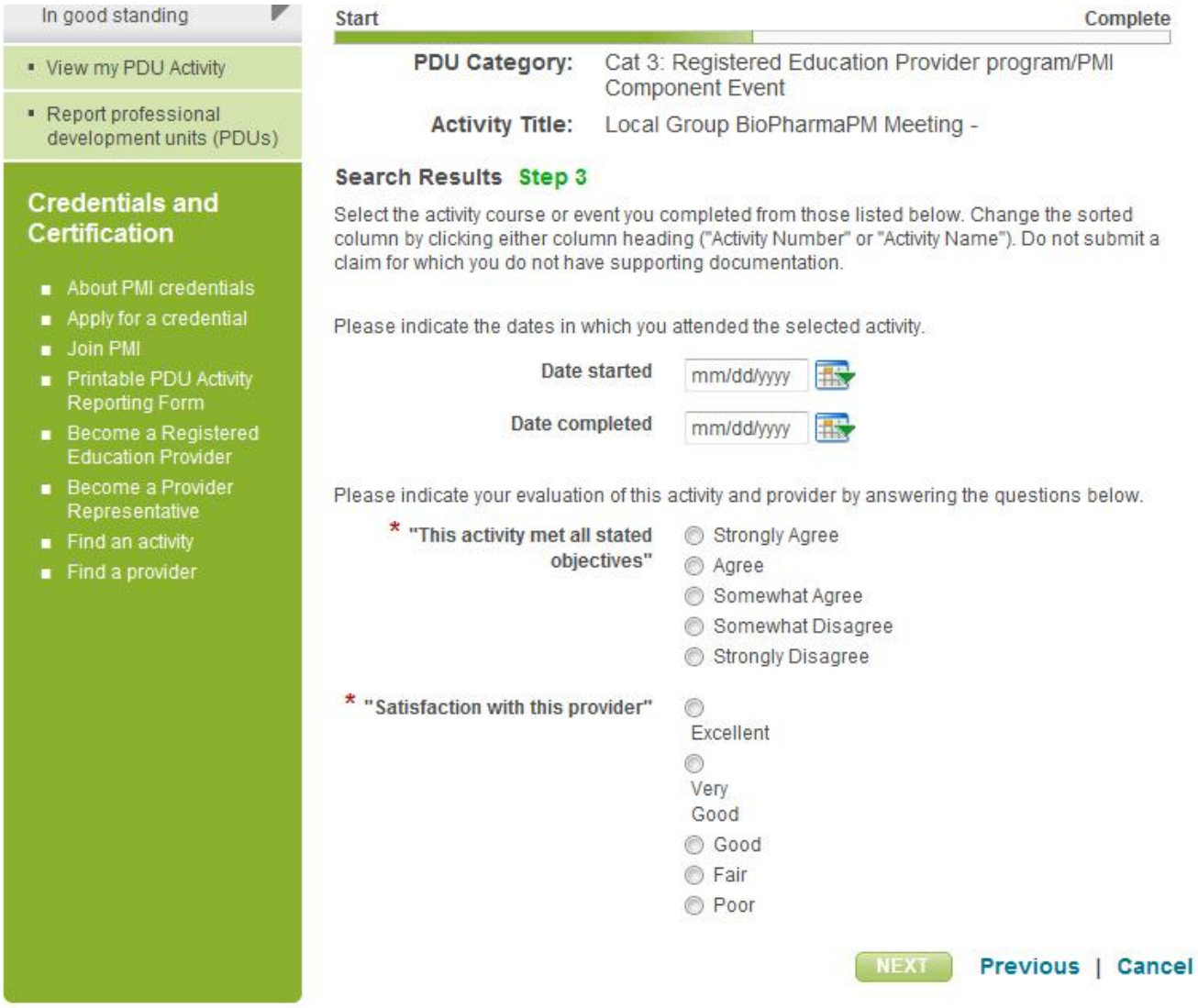


Once you have identified the event, click on Next to start completing the required information.

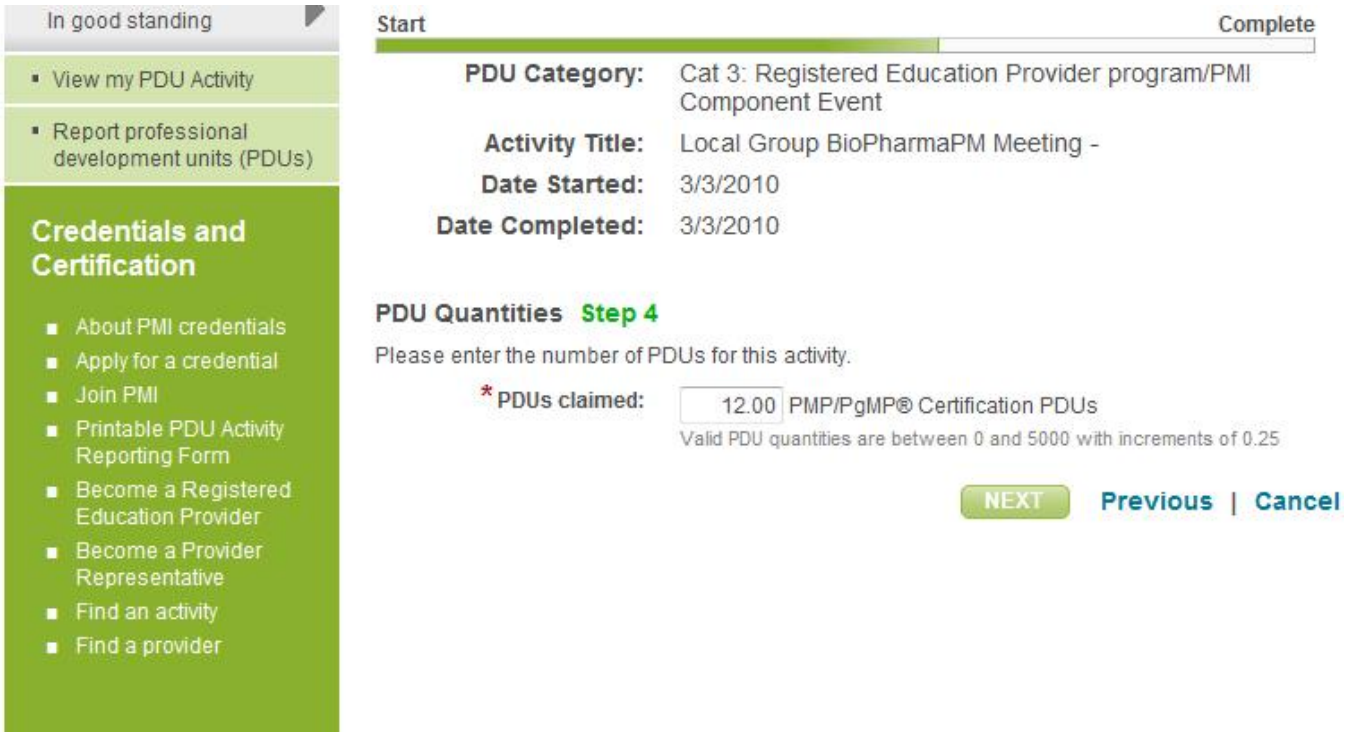


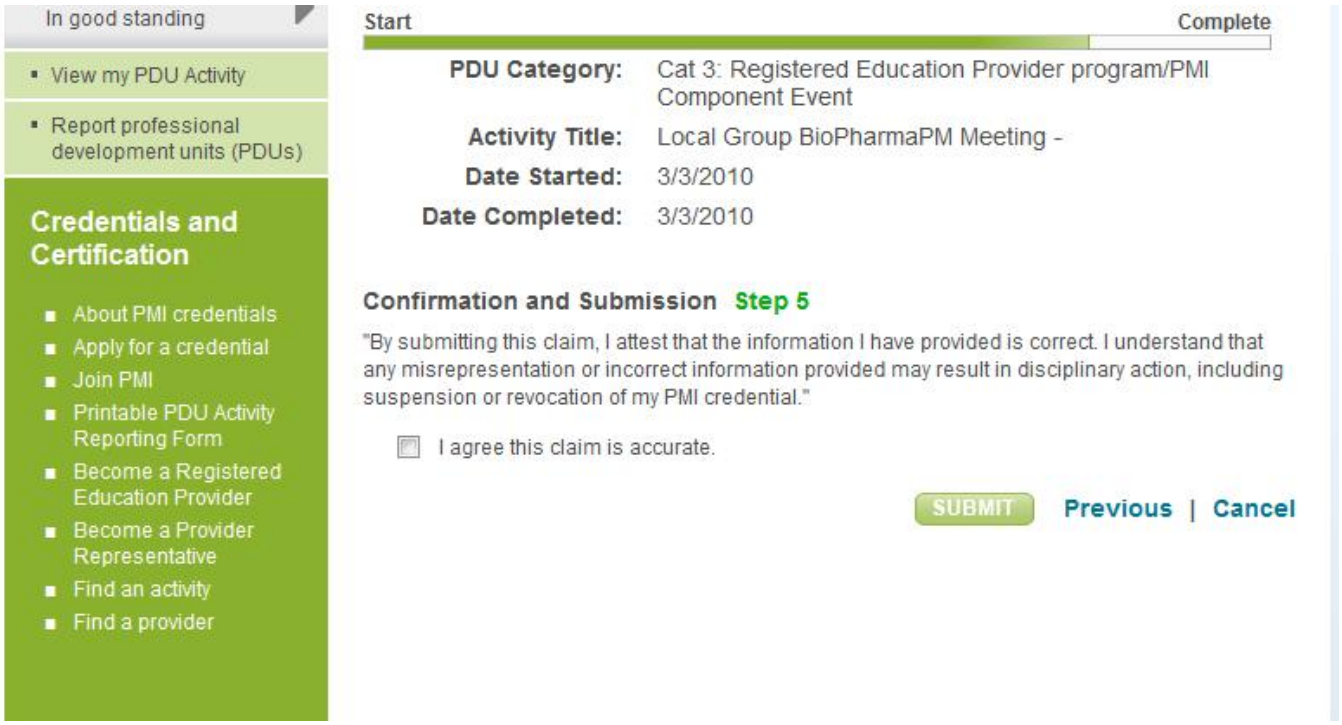
Please pay close attention to the following 2 elements:

"The activity met all stated objectives" and "Satisfaction with this provider". PMI is asking you to provide some feedback on each activity you attended. Kindly provide an honest feedback. If you feel at any point that your satisfaction with BioPharmaPM is not excellent, we would like to know and will work hard at making it better. Every provider has an overall score based on your feedback. The only reason why any of us (all volunteers) continue to provide you with opportunities to learn and grow is to meet your needs. So we care deeply about your overall satisfaction. Thank you!



Verify the number of PDUs for the event selected and that all the other information is accurate and confirm your claim.





A few final words. Please note that there is a madness behind our numbering system. All our events have 6 digits such as 090103.

The first 2 digits (09) represent the year. In this case: 2009. More will be explained when the handbook is available about events with numbers starting with 09 and how to claim PDUs for last year events. The second set of 2 digits represents our local groups with the following structure:

01 – SoCal	**02 – NorCal**	**03 – Colorado**	**04 – Philadelphia**	**05 – Singapore**
06 – Chicago	**07 – New Jersey**	**08 – Boston**	**09 – Seattle**	**10 – Toronto**

More will be added very soon. In my example, this was a SoCal event. The last set of 2 digits represents the month of the event (01 for January, 02 for February, etc…). In my example, it was a March event.

This document with preliminary information has been put together by Eric Morfin, BioPharmaPM Founder and first vice chair.

Look for an email toward the end of April 2010 announcing the release of a comprehensive PDU Handbook for BioPharmaPM members under the "Members Only Section" of the BPPM website. In the meantime, make sure your membership is up to date and that your annual membership fee of $40 is in good standing to ensure you can claim PDUs. Keep in mind that you can also claim PDUs for viewing the recordings of any of our local events on your computer. So, if you are in Kansas, you can claim PDUs for viewing the SoCal and the Toronto event recording. More on this in the handbook.

Sincerely,
Eric Morfin

BioPharmaPM Calendar of Local Group Meetings (February - April)

Note: Not all details have been determined for some of the meetings which will be indicated by TBD (To Be Determined). If you happen to see a TBD in any column of any meeting you are interested in then please visit the Calendar section of the BioPharmaPM website for any potential updates. The Calendar section of the website includes additional meeting information not listed below (e.g. contact information, presenter information, and a quick link to register).

August					
Date	**Time**	**Region**	**Hosted by**	**Location**	**Topic**
08/12/10	8AM	Boston	Integrated Project Management	TBD	TBD
08/13/10	8AM	SoCal	INC Research	15360 Barranca Pkwy Irvine, CA 92618	An Introduction to Quality Risk Management (QRM)

September					
Date	**Time**	**Region**	**Hosted by**	**Location**	**Topic**
09/09/10	8AM	Chicago	Baxter Healthcare Corp.	25212 W. IL Route 120 (Rt. 120 & Wilson Rd.) Round Lake, IL 60073 William Graham Building #1, Auditorium	Use a Lean Approach in PM
09/09/10	8AM	Boston	Integrated Project Management	TBD	TBD
09/14/10	8AM	Singapore	PPD Singapore	Room: "Training room", second floor of the alpha building #02-04. 10 Science Park Road # 02-04 The Alpha Singapore Science Park II Singapore 117684	TBD
09/16/10	8AM	Philadelphia	TBD	TBD	An overview presentation on NDA/IMA requirements for filing, project management strategies/tools for efficient planning the eCTD submission.

October					
Date	**Time**	**Region**	**Hosted by**	**Location**	**Topic**
10/14/10	8AM	Boston	TBD	TBD	TBD
For additional meetings in October please check the BioPharmaPM website towards the end of September					

BioPharmaPM Regions & Vice Chair

NorCal	Name:	Doug Tambling
	Email:	NorCal@biopharmapm.org
SoCal	Name:	Arlene Lum
	Email:	SoCal@biopharmapm.org
SoCal San Diego	Name:	Frances Park
	Email:	SoCal-SD@biopharmapm.org
Colorado	Name:	Jennifer Carver
	Email:	colorado@biopharmapm.org
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	Email:	NorthernNJ@biopharmapm.org
Chicago	Name:	Dee Suberla
	Email:	chicago@biopharmapm.org
Vancouver	Name:	Mohammed Hasham
	Email:	feedback@biopharmapm.org
Toronto	Name:	Steven Kerr
	Email:	feedback@biopharmapm.org
BPPM Chair	Name:	Aileen Morgan
	Email:	chair@biopharmapm.org
BPPM Treasurer	Name:	Mike Gerstle
	Email:	Treasurer@biopharmapm.org
Newsletter	Name:	William Coles
	Email:	Newsletter@biopharmapm.org
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	Email:	Seattle@biopharmapm.org
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	Email:	GreaterPhila@biopharmapm.org
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	Email:	Boston@biopharmapm.org
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	Email:	feedback@biopharmapm.org
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