

The following is an essay about the workbook and some general pointers on the process we will follow. If you want to jump right in go to Chapter 2. You will certainly wish to come back and read this part later. It will help you to see the broad view of what you are about to do.

Mental Preparation

Let's start with a step out and away:

- Why?
- Because...
 - It is good to do a mental warm up.
 - We want you to get into the habit of participating in the workbook right up front.
 - You may find pleasure in it.
 - It is good practice for the creativity work to come.

Note: if you are working with another person, share the results of your work after you complete your mental preparation exercise.

1. What is your personal objective for this workbook?
(Answer quickly and with a few words—e.g., I was just curious to see if there were structured ways of getting product ideas.)

2. Describe an object on your desk, in your pocket or in your purse.
(e.g., old watch — inexpensive, moderately accurate, from the boys on Father's day, sentimental, love, time...)

3. Now for the challenge—
Describe how the object and your objective are similar.

EXAMPLE

If the task were general curiosity and object was old watch:

- Both are ways of measuring
- I am sentimental about my product ideas
- Both (curiosity and the watch) are critical to my work

Your turn:

Good work! Now let's move on.

STARTING

It is time I come out of the closet and admit to it—I'm perpetually trying to diet. Occasionally, I even succeed for short periods! I am on a diet now, so my metaphors will tend to be focused on food.

Deciding what to do is your first task. No, that's not quite right. Your first task is to get hungry. The hungrier you are, the better you will do. You have to be convinced that you or your company will not survive without someone doing what you are about to do. The best meal I ever had was at the end of a long day of caving and rock climbing near Gettysburg, PA. As Don Quixote said, "There is no sauce in the world like hunger." and

Mater Artium Necessitas
(Necessity is the mother of invention.)

I am fond of turning that phrase into: Motherhood is a necessity of invention. It is the sense of ownership, before all else, that will motivate us to complete our creations.

Another key component is a positive mental attitude and the belief that there are ideas to find. Every mother and wife knows that those who believe they cannot find their shoes will not find their shoes, even when they are wearing them.

The ideas you create in this book are yours. They are not mine. And unless you decide to make them happen they will never be part of your company either. You will conceive of them and you will grow them and it is you who must give them a birth and a life of their own.

POLLYANNA WAS RIGHT—BLIND OPTIMISM WORKS

By Christopher W. Miller, Ph.D.

Pessimism is a most dangerous concept in business today. People are burning out. Reengineering and downsizing have caused unprecedented pressure. We see it particularly on the top levels of middle management. This group is being asked to lead the charge into the new world and at the same time maintain the commitments and realities of the old. In many cases seasoned senior people are being asked to perform contrary functions with enthusiasm. They report that they now work for everybody. Top management is leading the charge, handing out orders and watching to see if you really believe! The lower and less experienced levels of the company have jumped on the bandwagons of change without a thought for prior customer or employee commitment.

Senior middle managers have become the victims of the "U" shaped organization; everyone is at the top and they are where the blood settles. Change is inevitable and increasing in both speed and scope. I cannot stop it; I don't want to; nor do you. Our job is to get to high ground or on occasion catch the wave and surf a bit (the sought after paradigm shift). As you float on your sea of change we offer an explanation of why some catch the wave and others are swept away in it. Perhaps we can also describe some simple bumper sticker tactics that will help.

It is conceptually simple and operationally complex ... Pollyanna was right. Managers who are optimistic succeed more often than managers who are not. Martin Seligman and Peter Schulman writing in the Journal of Personality and Social Psychology in 1986 describe learned helplessness and learned optimism. Their research based on a study of over 15,000

Metropolitan life insurance agents over a period of five years shows that optimistic agents are both more productive ... that means they make more money (50% more) and stay with their demanding career longer. If this is true for the life insurance agent who must discuss death as part of their sales process I think it can be extended to you, the manager who finds themselves laying off in one area while spending at unprecedented levels in another. (Sara Lee Corporation lays off 8,300, the week of June 20, 1994; Sara Lee announces 200 million dollar ad campaign, Advertising Age June 27, 1994.)

What can you do for yourself and for others?

"My mother told me to smile in the morning. Regardless of how lousy or difficult the day looks; by the time I have made it through my morning ritual with this stupid grin on my face, I feel better. I'm ready to handle the worst the world can dish out with a sense of humor," reports a lawyer friend of mine, now a Senior Director of Training and Development. Her "stupid grin" prepares her to cope. Coping is the ability to execute key tasks even when you don't feel like it. We call this optimism; looking for the silver lining and if no silver lining can be found, at least a piece of humor; being Pollyanna'ish. Here are some beginning ideas that are simple but true.

- Accept responsibility for happiness in a small corner of your world. Commit an act of unreasoned kindness.
- Take a minute to meditate; to think; to be with yourself. Sit in your car for an extra 30 seconds and focus yourself.
- Forgive the trespassers who trespass against you. You have bigger fish to fry. Don't fight in a burning house.
- Fill your world with toys, happy face buttons, puppy dogs and fluffy kitty cats. There are no grown-ups. We are all pretending.
- If you can't sleep; get up; build a business plan for you and your network. Innovation Focus has been built on plans made between 2:30 am and 4:30 am.
- Dreams come true for those who work while they dream. Put energy into your long term development plan.

We continue our work on a book, code name, FunWork—A practical guide to making work more fun and productive. We do not have all the answers to the big issues you face in today's high pressure organization. We are, however, fellow travelers. We understand; and we hope to mark the path with a few flowers.

Reprinted from "Notions in Motion", Fall, 1994



Creating a Menu

After defining your task and spending a limited amount of time in analysis, your immediate objective will be to create a large number of ideas—from soup to nuts, a cornucopia, a smorgasbord, a Chinese menu. An often used recipe for creativity is:

$$\text{CREATIVITY} = f(Q * Q) * C$$

or

Creativity is a function of the quality and quantity of thinking multiplied by the climate into which the idea is introduced.

We will recast this formula later in the book at the point where we move from ideas to action. For now it is important to note that the quality and quantity of ideas are linked. If you increase the number of ideas from which you choose, you will also increase the probability of finding a good idea. So...

Get a large number of ideas on the table

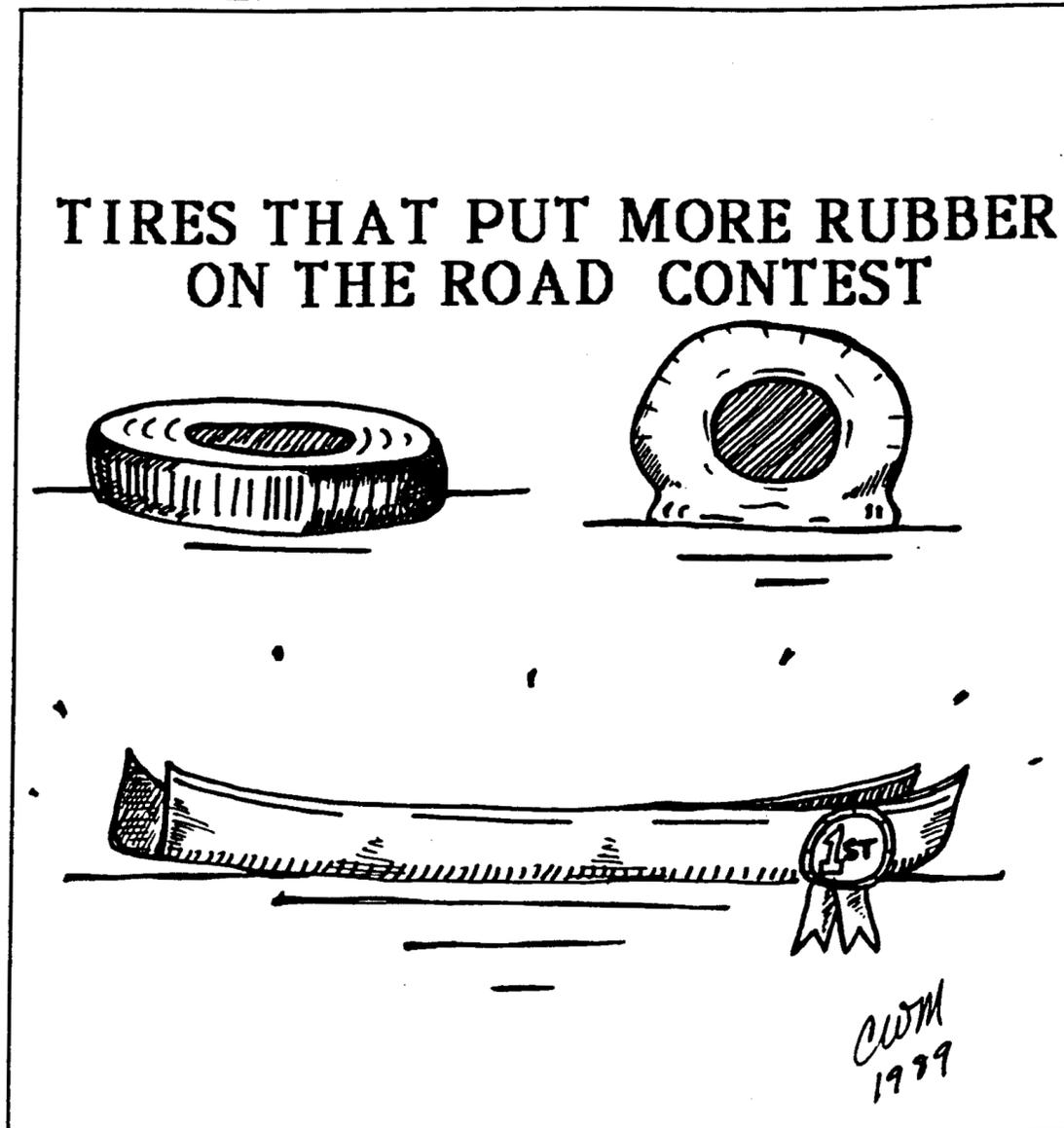
After you have enough ideas, you can select from the menu. What we are doing is called parallel thinking. We will continually work to think along multiple tracks. We will converge our thought processes only for selection and decision making. We will address selection of ideas in Chapter 4 and we will discuss decision making in Chapter 6.

Once you have found a few areas of intrigue to pursue, you will give the ideas hang time. This is like chat time between courses of a meal. Nothing enhances the meal more than a good laugh or a challenging debate. Don't rush from selection to definition. The newer the idea, the more playtime it will need. Finally, concept sheets will be developed and you will be ushered through a final selection process.

Ideas are a burden at the concept stage. We are told by our clients that we leave an incredible amount of work in our wake. Any farmer knows that putting seed in the ground is a modest, though critical, job when compared with the work required to prepare the soil and to care for it afterward.

You end up with seeds

We conclude the workbook by spending some time discussing considerations for implementation and next steps. One of our favorite quotes comes from Bill Torregerosa, Director of R&D at Hershey Foods, "Yes, this is where the rubber meets the sky." Bill has a good sense of his priorities. He knows how the wheel turns and how much must be in the sky at any given moment. Consider the other common phrase, "We need to get more rubber on the road." Even with his strong, "Rubber meets the sky" mentality, Bill knows about next steps. He wants a wheel that goes all the way around.



What to Expect

Microchip inventor Jack Kilby recommends time and money as the key ingredients in his recipe for creativity.

He is right

Now, with that said, let's get on about the business of this book. We all wish for more time and more money and one of the reasons you are using this book is to save what you have for the point at which it can have the greatest impact.

What I would like to suggest is that you make an initial commitment of 20% of a standard work week to this effort. (When was the last time any of us saw a standard work week? Ask around. Someone in the office might know someone who can tell you what it is.)

Commit Eight Hours

That is right—eight hours. Put it on the calendar, spaced out over the week in one or two hour blocks if you like. We recommend against doing it all in one sitting. If you plan to work with another person, add two hours—in fact, add an hour or two for each person you add, up to four. At five people, seek professional help. The group dynamics have now become more complex than your invention issue.

We received a letter from one user who spent an initial twenty-seven hours over a period of nine days. At the time he wrote the letter (six months after starting the book), he was still working to schedule in one hour a week.

Also, make a concerted effort to think about the issue at odd times:

- Early in the morning
- While mowing the lawn
- During a football game

Try to avoid thinking about it for extended periods, particularly when your significant others are trying to express affection. It may not have any effect on your idea generating, but we promise you, it will certainly impact on your happiness at home.

The Role of Others

“People! Can’t live with ‘em, can’t live without ‘em!” And, believe me, I have tried it both ways. I’ve gone on long trans-Sierra hikes and been elected to two local town offices. Both are mega doses in the wrong direction.

Effective innovation requires four key elements in the room with you. Note that these elements can be embodied in a group or in a single individual.

- Decision Making Ability
- Implementation
- Appropriate Expertise
- Diversity (Inappropriate Expertise)

There are times when a group can be of tremendous help and there are times when, frankly, they get in the way. We recommend help at least when you are generating ideas and we might add that for us, it doesn’t seem to matter who. But, you decide what you need.

You may want to consider these options:

- It may not be a bad idea to collect a few ideas from the Market Research folks, if that is a critical implementation gate for you.
- You certainly will want to check in with your boss and one of my favorite sources, your office support staff.
- What about field sales? ...a key customer? ...or the person who had your job last or maybe will have it next?
- Our favorites are waiters at Chinese restaurants, our younger children and our other personalities.

We have already warned you about large numbers of people, but let us remind you again. If you are planning to run an invention with five or more people...seek help.

Brainstorming is about getting ideas and commitment to those ideas. Research is, quite frankly, all over the place about the value of brainstorming in groups. That is why I recommend a professional when you get more than a half-dozen together.

While working together may or may not build better ideas, it will almost certainly create shared ideas which are more likely to gain a commitment to action.

So who do you need to get to action? Get them involved upfront.

Leadership

What about your boss? How do we know if this is the appropriate place in the company for inventing? What if you are the boss?

By the way, it matters.

A Comment on Leadership

Christopher W. Miller, Ph.D.

The opportunity for newness is fleeting. As a leader of a team or company, you must introduce your thinking at the earliest stage of concept creation. Wait and your options drop to yes, no or get more information.

As senior managers, we know this, and yet we contradict it in action. Steven Wheelwright of Harvard noted at the 1994 PDMA International Conference that senior management believes that their opportunity to impact product direction occurs early in the process, before or during idea creation, yet they report spending their time in the latter stages.



During a recent speech, I was challenged by the question, "Do you involve senior managers in the creative process?" My answer "YES" was greeted by horror stories of presidential ideas and bias run amuck. I am sure each of you has your own horror story. BUT, I must have the last word; There is no process I can offer, no creativity training that exists which is as good at opening up the world of possibilities as that truly absurd idea from the leadership. So, Leadership, get with it!

Surrender the time. Don't just drop in on the idea creation process; give direction from the beginning and get good at it. Well begun is half done. Your participation early will save you and others days trying to salvage misdirection.

Accept the mantle of the Naive Resource. Climb out on a mental limb and scare your staff to death. Be wild and crazy. The only idea that will hurt you is one you don't have.

Your first words count. A senior manager in the Flooring Division of Armstrong presented a truly absurd concept as his first idea at a recent session. This singular act took 15 seconds and opened a world of thought to the rest of the ideation team.

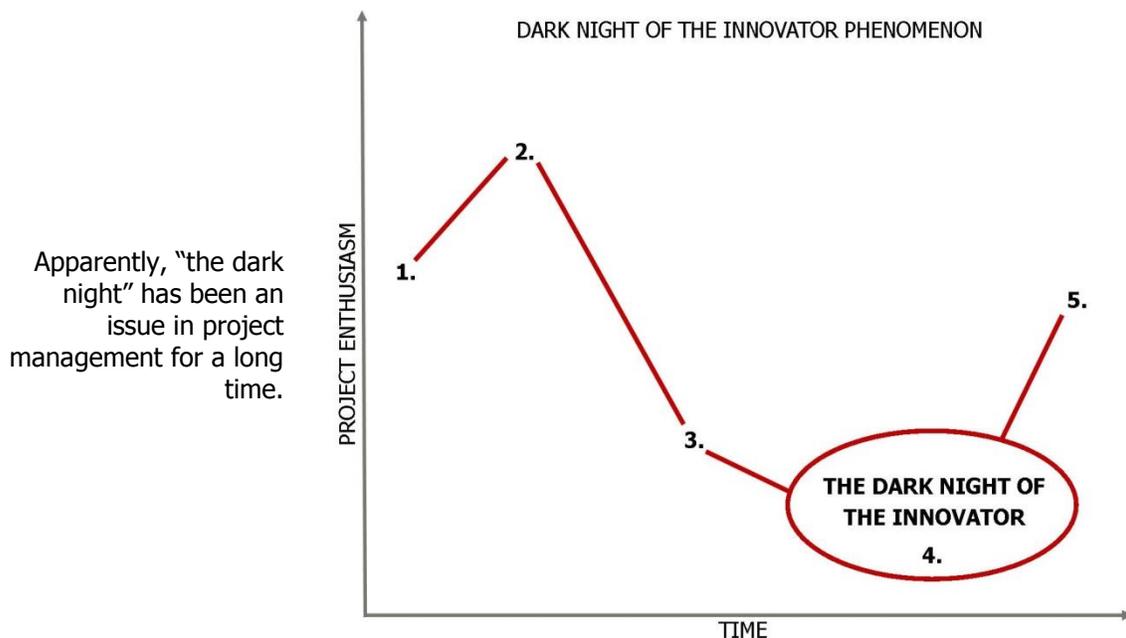
Forgive yourself. Concept creation is messy at best. You cannot be buttoned up. Even your usual efficiency can lead to fatal oversight. Stay loose until rigor counts.

Don't allow leadership to be frozen out of the lead in concept creation. Senior managers are too bright and too experienced for any organization to relegate them to the mundane.

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The Dark Night of the Innovator

The Dark Night of the Innovator was originally presented to us by a high-strung thinker from Dublin. Fortunately, we were able to get through his rather aggressive thoughts about management and find real value which has stuck. At one point we were doing a consultation with a Chicago area seminary. Upon hearing the Dark Night story, the president said, "Oh, it's the 'Moses and the Hebrews yearning for the flesh pots of Egypt' story."



1. Invention: When an idea that has clear value first emerges, project enthusiasm builds rapidly. This rapid development is easy and fun. And if the ideas have a "fit" with the company that is easily perceived, it gains support and gets to the next level.
2. Decision: At the decision point, we have been working so hard on selling the idea that we have sold ourselves. It would be unnatural not to become committed. Enthusiasm builds and we receive the blessings necessary to initiate and carry out the project. This is particularly true if you are at the head of your organization.
3. Project initiation: Now we are into the development cycle. We are initiating research efforts in both marketing and engineering. We are looking at packaging and legal issues. We have some successes along the way. Customers like it, but...our path takes us from the "salient few" into the "land of the trivial many". Enthusiasm has been dropping since the decision point. Next, you enter...
4. The dark night of the innovator: Then you get a call at 3:00 a.m. Sunday morning. The new project engineer you were lucky to get is calling from Provo, Utah. His U-Haul has broken

down and he is out of money. The cash advance you sent to help in the move wasn't enough. His four-year-old has the chicken pox...he's not sure, but his pregnant wife is having regular contractions. He may not be at the office Monday as planned. Things look grim...enthusiasm is at an all-time low.

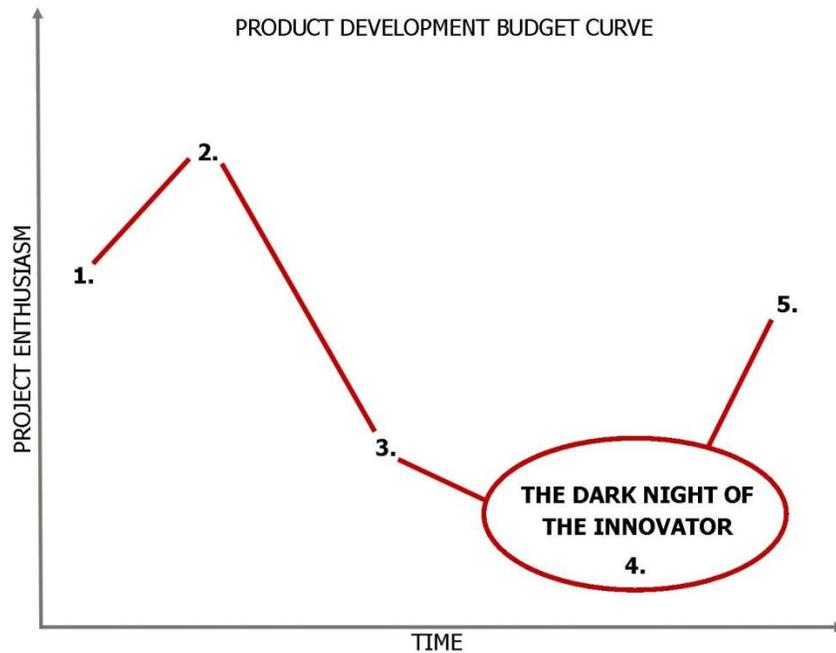
Still, we deal with one problem at a time. Each one resolved seems to give way to three new monsters. The project has started to control us, not the other way around. Dates are in jeopardy and the budget looks like something Alice thought up on her way into the rabbit hole.

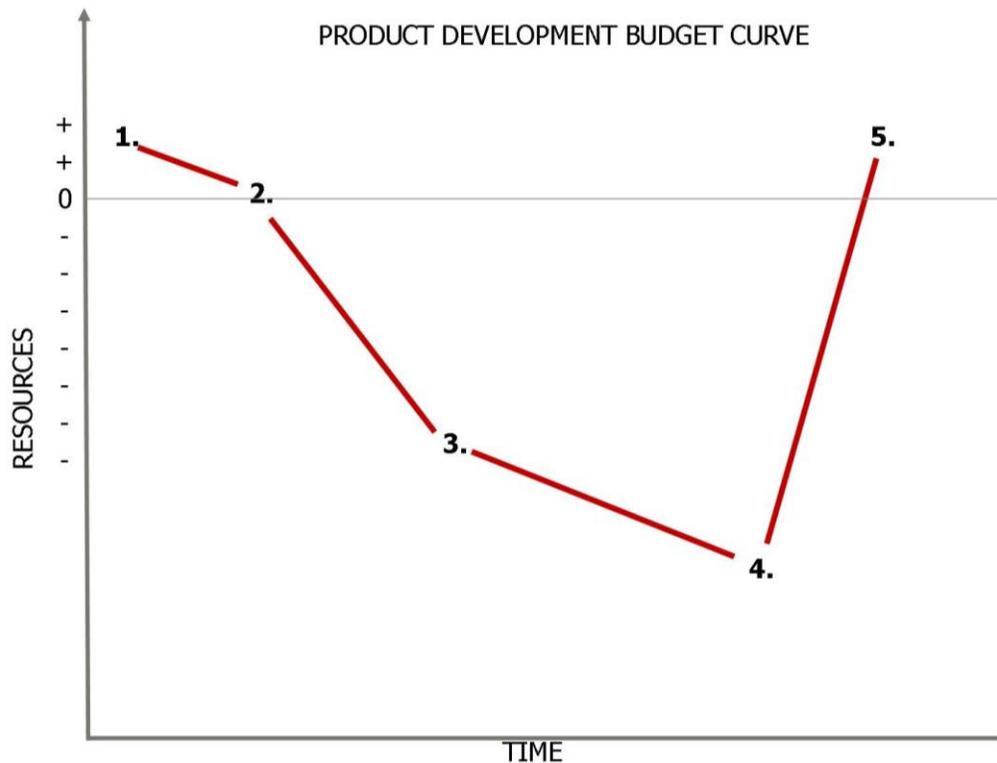
5. Emergence and launch: Problems are solved one at a time. Manufacturing, purchasing, engineering, the agency, sales, marketing, finance, data processing, distribution and everyone else starts to fall in line. Expectations are stabilizing and because you are a good, honest hard-working manager, you achieve just about what you set out to achieve.

Note: You probably do not achieve the euphoric expectations developed during stage two. None the less, you do get out of the idea what you initially wanted.

**Oops!
A complication...**

"Just when you thought it was safe to go back into the water..." there is a second curve that dramatically affects how you are perceived. This is the product development budget curve.





When you are in the midst of the darkest part of the dark night, you are spending the most money. Being human, you will ask yourself questions like, "Is it worth it?" And if challenged to prove the value of your project at this point you are vulnerable.

The Solution—High Cover

You need High Cover—a supportive person who understands this cycle, will keep you going, and will keep the wolves away from the door. This person may also need to:

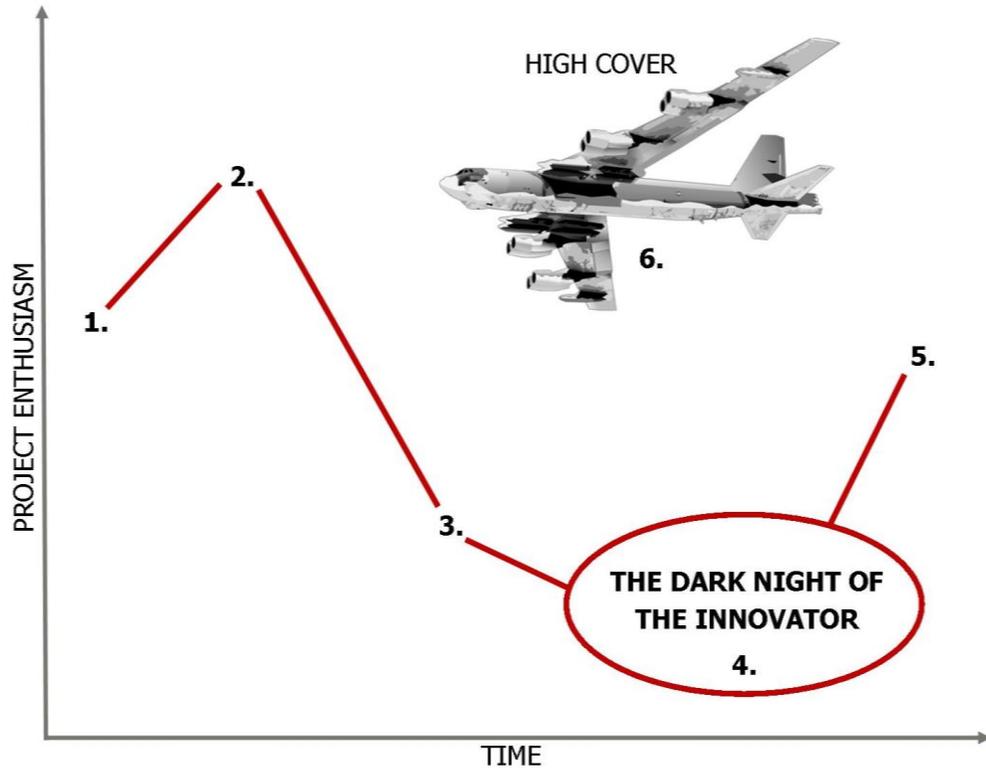
- Send you home on occasion
- Work hard to find a positive aspect to the current state of affairs and praise you for it
- Protect you from your immediate boss
- Break rules
- Cheerlead
- Defend the vision

This person should never kill the project, but should be there for the postmortem to ask the questions:

- What did we learn?
- How can we do better next time?
- What do you want to do now?
- Is there a way to salvage some of the work?

High cover should never be completely satisfied, and should ask these same questions even if the project is perceived as a success.

High cover becomes the number 6 on the curve...



Note: High cover is human, too. Re-read *Exodus and the story of Moses*. One of our associates, a former military wife, compares high cover to the B-52. It can be a formidable weapon in the air. On the ground, it is a target.

A cautionary note for those who act as high cover: stay out of implementation! Avoid getting involved in detail. You are a protector of the vision and need to stay detached. Advise and support, but don't do it. And don't make the decision if you can avoid it. Coach, don't quarterback. Avoid being thrust into the role of decision maker by someone lost in the dark night. Companionship will not make their plight happier.

You may find yourself making decisions that fit your business as it is, not as you would like it to be.

Your new product team needs **a coach, not a couch!**

What The Research Says...

The following is from William E. Souder's landmark study *Managing New Product Innovations*, 1989.

DOES YOUR SOURCE OF LEADERSHIP MATTER?

| SOURCES OF SPONSORSHIP | PERCENTAGE OF PROJECTS THAT MET OR EXCEEDED EXPECTATION |
|-------------------------------|--|
| INTERNAL | |
| R&D | 39% |
| Marketing | 64% |
| Management | 51% |
| EXTERNAL | |
| Suppliers | 31% |
| Customers | 36% |
| Other | 40% |

Draw a big dark circle around where you see yourself in your current project.

All sources of sponsorship work. Yet, we know that some approaches to leadership in new product development are more effective than others. Organizational character plays an extraordinarily large part in finding the right approach for your company.

Now follow this thought with the more detailed data.

YOUR METHOD OF MANAGEMENT DOES COUNT

| METHOD OF MANAGEMENT | PERCENTAGE SUCCESS RATES |
|-----------------------------------|---------------------------------|
| TOP DOWN STRUCTURES | |
| Commercial Line Management | 43% |
| Technical Line Management | 25% |
| NEW PRODUCT STRUCTURES | |
| New Products Departments | 45% |
| New Ventures Departments | 33% |
| PROJECT MANAGEMENT METHODS | |
| Commercial Project Manager | 73% |
| Technical Project Manager | 32% |
| TASK FORCES AND TEAMS | |
| New Product Committees | 72% |
| Dyads and Counterparts | 43% |
| ONE-MAN SHOWS | |
| Commercial One-Man Show | 27% |
| Technical One-Man Show | 23% |
| AVERAGE OF ALL METHODS | 46% |

Where do you fit in? Don't hide from this data—it won't go away.

Now, for my favorite piece of juicy data from Bill's work...

| WHAT HAPPENS AS UNCERTAINTY INCREASES | | | | |
|--|-----------------------------------|------------------------------|------------------------------|-----------------|
| PERCENTAGE THAT MET OR EXCEEDED EXPECTATION | | | | |
| MANAGEMENT METHOD | TECH AND MARKET UNDERSTOOD | TECH KNOWN MARKET NOT | MARKET KNOWN TECH NOT | BOTH NOT |
| Top Down | 53% | 27% | 36% | 10% |
| New Product Structures | 60% | 31% | 39% | 43% |
| Project Management | 63% | 50% | 54% | 48% |
| Teams | 58% | 58% | 70% | 47% |
| One-Man Show | 42% | 64% | 27% | 8% |

Success in new territory increases if...

- You can find a project manager who has successfully done something very much like it before.
- You can put together an interdisciplinary team with a clear mandate and direction.

These approaches are not mutually exclusive. A senior project manager can be greatly assisted by an interdisciplinary support team. And a team or task force can be enhanced by strong and experienced leadership. Further, both can be enhanced by successful independent creative efforts by the team members. In either of these cases, roles must be identified, understood and agreed upon in advance.

Top-down structures and one-man shows quickly lose their viability when faced with previously untested markets. The one man show is at its best when dealing with an unfamiliar market and familiar technology. If you are the boss, stick to what you know. Do not press beyond the limits of your knowledge or your time to learn. The *PIMS* data, provided by the Strategic Planning Institute of Cambridge, Massachusetts, can give you a whole set of reasons for the CEO to stay out. We believe that there is a role for the boss, more even than signing the checks. The boss can be a rich source of experience and expertise. The rule is caution.

WHEN IT COMES TO THE PRODUCT DEVELOPMENT PROCESS, SENIOR MANAGEMENT SHOULD LEAD OR GET OUT OF THE WAY
A Report on the Presentation by Prof. Steven Wheelwright at the PDMA International Conference

Lawrence P. Feldman, University of Illinois at Chicago

Professor Steven Wheelwright of Harvard University addressed the International Conference on Friday morning, November 11. Prof. Wheelwright began his presentation, "Senior Management's Role in Changing the Process," with the thought-provoking statement that "senior management's involvement in the development process is far more likely to be part of the problem than part of the solution."

Why Senior Management is Part of the Problem

To explain his contention, Prof. Wheelwright began by showing the familiar funnel-shaped diagram, illustrating the series of stages in the product development process as it is conventionally described. He then compared this with a diagram drawn by a senior manager that purported to describe the salient characteristics of the product development process as actually practiced at his firm. This diagram, which looked like a cross between something

drawn by Ronald Searle and Rube Goldberg, depicted a process so chaotic it is almost impossible to describe verbally. Among other things, it consisted of grotesque bulges arising from the late injection of ideas into the process, strange sidetracks, and unwarranted filters, most of which reflected the effect of senior management's unwarranted interference in an essentially ordered process. Prof. Wheelwright explained this phenomenon by pointing out that the part of the product development process where the participation of senior managers would be most beneficial, and have the greatest impact, is the front end. Nonetheless, he said, there is a propensity for them to concentrate their efforts on the later stages, where the effect is more disruptive than constructive.

He attributed this to the characteristics of the product development process. The front end is characterized by an environment that is vague, risky, and difficult, involving decisions with long-term effects and little feedback. On the other hand, back end decisions have high visibility, are revenue and data driven, have a high level of urgency, and provide enjoyable and near-instant results. As a consequence, senior managers tend to be attracted to back end activities and decisions.

Three Responsibilities of Senior Managers

So what are the responsibilities of senior managers involved in the product development process? According to Prof. Wheelwright, their basic task is to provide leadership by creating the right mix of projects and determining how resources should be allocated among them. This involves three distinct activities: the creation of pre-project plans, the effective execution of each project with development teams, and seeking to improve with each project by capturing the learning.

The Creation of Pre-Project Plans. Pre-project planning involves the classification of projects according to their product and process combinations. An important consideration is R&D capacity analysis, an activity he described in some detail.

As an example, Prof. Wheelwright cited the planning for Eastman Kodak's single use Funsaver camera. Using a diagram, he showed how plans were made for product extensions from the basic Funsaver camera platform, and how that platform was, itself, extended to another generation of Funsaver products. The planning for the manufacturing processes involved with each generation was performed in parallel with product line planning, and included the development of a recycling system for Funsaver II products.

Effective Project Execution Through Development Teams. Prof. Wheelwright, who has written extensively on the nature of cross-functional teams, has developed a four-way typology to describe different types of teams based on the degree of autonomy enjoyed by each. These, ranging from the least to the most autonomous, are "functional", "lightweight", "heavyweight," and "autonomous." (For more details on this typology, see Steven C. Wheelwright and Kim B. Clark, "Organizing and Leading 'Heavyweight' Teams," California Management Review, Spring 1992, pp. 9-28.)

According to Wheelwright, it is important that the project be matched with the type of team more appropriate for its execution. For example, a project involving a new core product and new core process might best be executed by an autonomous team. He went on to describe five critical inputs that should be provided by senior managers:

1. Creation of a cadre of people, core team members and project leaders. To staff projects.
2. Definition of project charters that tie project success to business results.
3. Definition and operationalization of a heavyweight team process.
4. Balancing powers between functions and teams.

5. Provision of support, feedback, and guidance (sponsorship) during project execution.

With respect to the last point, Wheelwright suggested parenthetically that senior managers should serve as buffers to senior management interference in the back-end stages of the new product development process.

Improvement Through Captured Learning. Prof. Wheelwright prefaced his remarks on this topic by pointing out that individuals have the capacity to learn from their experiences with each project, but institutions do not. He suggested four ways for senior managers to make organizational learning a reality:

1. Focus attention on improving product development performance over time.
2. Create approaches to capturing learning through the uses of means such as measurement, modeling, project audits, software tools, and diagnostics.
3. Establish means for sharing learning about the development process, such as training, tools, career paths, demonstration projects, and coaching.
4. Define dual objectives for every project: business results and process improvement results (capabilities).

Prof. Wheelwright concluded his remarks with a brief discussion of reward systems. He advocated that the head of a team play a significant role in the allocation of rewards, and that these rewards should be based on his or her judgment on the extent to which the team head met its objectives. In deciding whether to use financial or non-financial incentives, he favored the latter in the form of both recognition and career path rewards, claiming that a financial reward system was too amenable to sabotage by non-team members.

Reprinted from Visions, Vol IXI, No. 1., January 1995
(Visions is a publication of the Product Development and Management Association)

The issues of leadership and success have significant implications for us in this workbook. One-man shows can be quite effective when we stay in known technology. It is when things start to become complex that the challenge grows. One approach to resolving the limitations of one person is to move toward the dyad in your work. If you were planning to pursue this project alone and you are in engineering, you may wish to recruit a marketing person to give you a hand. Also, if you are in marketing, a partner, even an informal partner, from the technical world will be able help to you. These groups of two are called dyads.

There is one danger about setting up dyads.

They work!

They work so well, in fact, that on occasion they can run away with the company. Or worse yet, many successful teams have run away from the company and become the competition. It is like building a car with all wheels and engine. Boy does it go! But, don't try to stop or turn! Dyads belong on the managerial equivalent of the Utah Salt Flats.

Process Flow

There are many good problem solving and invention techniques. If there is a generic, and we don't really think there is, it would go something like this:

THE VANILLA FORMAT



The process formats that we truly respect involve, or at least acknowledge, each of these elements. Arthur Van Gundy in his book, *Techniques of Structured Problem Solving*, outlines 105 approaches. Many of these are strong independent systems. Others are incomplete techniques appropriate to assist in only one or two of the stages.

We believe that each of these areas has evolved through centuries of use and abuse.

TASK STATEMENT

Elmer Sperry

"If I spend a lifetime on a dynamo I can probably make my little contribution toward increasing the efficiency of that machine six or seven percent. Now then, there are a whole lot of arts that need electricity, let me tackle one of those."

ANALYSIS

Thomas Edison

"No experiments are useless." Edison and other results-oriented engineers of his day were frustrated by a scientific community that could not keep up with how things really worked and insisted on struggling to fit new invention into old theory. Still Edison held a prodigious library, and I think would have agreed with Amy Vanderbilt's feeling on etiquette— those who know the rules have earned the right to break them.

IDEA GENERATION

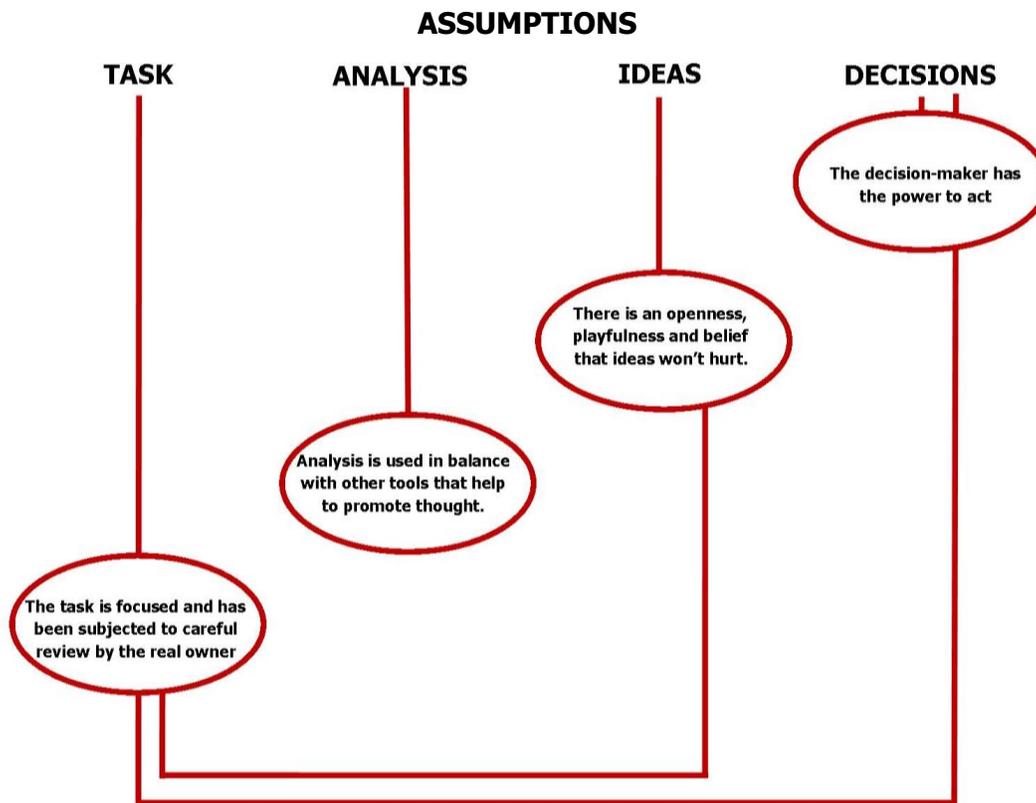
Thomas Midgley

"The trick is to turn the wild goose chase into a fox hunt." As the inventor and chemist responsible for tetraethyl-lead in gasoline, he knew how to combine a lifetime of knowledge with an openness to accidental events.

DECISION MAKING

John F. Kennedy

"How could I have been so stupid?" A summary of his feeling on his Bay of Pigs decision. We each have our own personal Bay of Pigs. Critical to the ability to decide is your ability to live with a mistake.



The Focused Innovation Technique™

This workbook uses a process flow that is best described as a form of Ideation or Brainstorming. We use a specific process called **The Focused Innovation Technique™** or **F.I.T.**. F.I.T. has its origins in numerous wells of thought. We primarily owe a debt to Carl Rogers and his work in reflective psychotherapy and Alex Osborn's work in the late 40's and 50's on the use of brainstorming in business.

The F.I.T. is based on a pattern of repeated focus and exploration. The pattern of focus and exploration can be done on parallel levels with many people or ideas or with a single idea. Along the path those who use the technique of ideation can diverge and use other techniques.

The Focused Innovation Technique has been developed with new product work in mind. It has evolved through years of use with scores of companies. And with all of that, it either works or doesn't based on *your* effort.

We are providing a process. Only you will make it happen.

Definition of the Basic Steps in Ideation

A. TASK HEADLINE

Define a clear statement of what it is you want to accomplish. Make it specific enough to provide direction, open enough to allow for exploration.

B. ANALYSIS

Five basic questions must be answered. They can lead one to do a great deal of work or they might be answered in a few minutes. Deviating into morphological analysis or other detailed efforts can be appropriate at this stage. This deviation can also add days to something that should have taken minutes. Our bias is toward less initial analysis. You will know if you need to come back. Again, let me refer you to Van Gundy for information on morphological analysis or other techniques.

C. WISH BRAINSTORMING

You will be asked to put down on paper all of your ideas, big and small, good and bad, obvious and obscure. You will also be given exercises to help you generate additional beginning ideas. You may also collect ideas from others.

D. SELECTION

You will be asked to select ideas based on intrigue rather than feasibility. You will also have to prioritize to create a short and manageable list of beginning ideas.

E. CONCEPT DEVELOPMENT

You will develop many optional ways of approaching the basic idea. You will select several of these as potential new product concepts. The selections will be developed into one page statements of what the idea is. This is a second level of idea creation. You will create ideas that describe your idea and you will list ways to overcome barriers to the idea.

F. FINAL SCREEN

You will develop key criteria and select a few. Then you will screen your list of concepts against these. From this you will rank your leading concepts.

G. NEXT STEPS

You will complete the process by examining next steps for each concept separately and as a group. You will be encouraged to be realistic and to generate ideas for different approaches to implementation.

Is that it?

No.

When you get all of the way through this workbook you will have achieved something of value. If you find nothing, you will have learned a good deal. If you find an idea to pursue, then you know that your work is just beginning. Whatever your case, please take a moment and reflect on your success or your learning.

Give yourself something special.

Write out the reward you will give yourself upon completion. If there are three of you there may be three separate rewards.

EXAMPLE

I will close my office door and flip through old magazines, while sipping a beer with my shoes off, between 5:00 and 5:30 on Friday.

Hint: This reward has to be something that is for you. We prefer the little things that we know we will do, to the large things, like a day off, that get sifted under a pile of more urgent priorities.

What is your reward?

Person # 2:

Person # 3:

Good luck!

