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Session 55TS Improving the Product Development Process

Track: Product Development

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Summary: Whether in response to the adoption of the 2001 Commissioner's Standard Ordinary (CSO) Mortality Table or the need for a brand new product offering, an efficient and effective product development process is vital. Powerful, disciplined methods and tools can result in shorter times to market, more projects on budget, fewer errors and more successful launches. The panel provides insight into proven process improvement strategies.

MS. KELLY A. LEVY: Just a quick introduction: why the focus on product development process? Well, as mentioned in our session description, an effective process results in shorter times to market. An effective process also results in more projects on budget. And an effective process results in more successful launches. Why do we care about more successful launches? The life insurance industry has about a 30 percent failure rate as far as product successes go (70 percent success rate). We actually look like shining stars compared to our group pension compatriots, who have about a 50 percent failure rate on new products.

Why do we have these high failure rates? The number one reason is inadequate market analysis. That, to me, points to a flaw in the process. I say this because during the product development process we should be saying, at the very first step, "Is this product something that people actually want?" Clearly we're putting out products that people just don't want.

Our speakers this morning are Philip Ferrari and Paul Myers. Philip is vice president and consulting actuary for Aon Consulting. His client work includes pricing and product development, model development for corporate projections and Section 7702 compliance testing. He will speak to us today on the product development process, process improvement methods of Six Sigma and Stage-Gate™, and he'll end with some comments on process issues around the 2001 CSO readiness.

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Paul Myers, our other speaker this morning, is assistant vice president, individual insurance products, for Canada Life, U.S. division, in Atlanta. He leads the team responsible for product development, pricing, illustrations, state filings and actuarial work. The products he's responsible for are variable universal life (VULs); universal life (UL); whole life, term and critical illness. Paul will speak today on how he brought the Stage-Gate™ methodology to Canada Life's many international divisions. We're going to start with Phil this morning.

MR. PHILIP P. FERRARI: I'm going to dig a little deeper into some of the items that Kelly spoke about regarding process problems. Then I'll get into some approaches to process improvement—some that are being used and some that are not. People don't yet see a fit between a process-improvement technique for tangible products being developed versus an intangible process that can be improved as well. Finally, I'll end with why now is the time to improve in the wake of the 2001 Commissioner's Standard Ordinary (CSO) Table being approved and the work that's going into getting compliant products and revamping product portfolios. Now may be a good time to examine your process and improve it.

So in overview, from one perspective, the product process seems logical. Chart 1 outlines this process. It looks logical; I'm sure we've all seen similar graphs or exhibits where they go through the development cycle showing the various stages and players involved. The first stage we've seen is concept and screening, where product analysis is done. The concept is then developed, planning is put forth and moved into a development stage when all the different departments integral to the product development process—marketing, actuarial, administrative, underwriting—come up with initial specification plans relative to the product design that's been put forth.

The optimization phase is the iteration process for developing the product chassis where different structures and tradeoffs are tested. All the different departments have input into this iteration process, which sometimes can cause it to stay in this phase longer than it should.

Once the final specs are designed, it's preparation time, when regulatory filings are done and administrative and illustration systems testing goes on and implementation and training occur. Ideally, a lot of this has been started in earlier phases, so that there is parallel-processing going on; for example, getting filing forms and admin systems ready and running while the optimization phase is still in action. Often that's not fully the case—probably not as much as it could be—and that preparatory phase ends up taking a lot of time in the development process. Finally, implementation of the product and launch happens, the operation of the business is going on and the results are monitored. Again, that's another stage that probably isn't done enough: monitoring the results of the product.

Upon a closer look though, is the development process broken? Chart 2 represents an actual process flow chart obtained from a sample company (obviously with a

little enhancement made!). But it shows who says what throughout the process and who reports to whom. IT gets in and implements their say on what can and can't be done. The corporate actuary may change assumptions one, two or three times. The product actuary sits in the middle of this trying to develop a product, listening to all these people give input and make changes. Then there's finalization of product design and pricing, which is the goal. From what we've seen, the real value-added steps are the ones in blue, where the product actuaries run the work and the final design is created. The other stuff may be removable from the process, or least may be able to be set up better so that it doesn't hamper the process as much.

How well do insurance companies attend to process? We've seen a lot of companies just continue to ignore their process or ignore the fact that it could be improved dramatically. As outlined in Chart 3, and based on a 1996 survey, in some of the last data studies that we had looked at, half of the respondents made changes to their product-development process within the last two years prior to that survey. It's important to note that only about 50 percent of the people are worried or were worried about process. Two years between improvement ventures is probably too much. It's something that should be done after each product development, every six or eight months. Most companies are making significant product introductions every two years, probably every year now where multiple products are being launched. Speeding up the speed to market is critical. So the fact that only 50 percent of the people were worried about process a few years ago, isn't the percentage that it probably should be. People need to be more worried about their processes.

Other studies have indicated that 30 percent of development efforts fail. Kelly put up some charts that showed some of the reasons for failure. Failure could be anything. It could be a bad launch, a late launch, it could be a product that misses the mark—it could be anything. So companies are facing some general questions that they can start to think about regarding their process: Are new products being released fast enough? Are products coming to market outdated? Term makes a great example. If you take more than three or four months just to get out a new term filing, your rates are probably going to be outdated due to the frequency of rate cuts in the term market. Is the process inefficient or too costly? Are the costs as expected? If you were able to make it more efficient, could you save dramatically on the expenses in developing that product? Again, term is a good example. Expenses are very important to term pricing. If you could cut development costs way down, would that help you?

How does your process compare to that of your competitors? Are you examining your process and trying to improve it? Because your competitors are going to, or they already have. Are you ready to try to get an advantage in executing product development and launch over those competitors? Would you get different market share and financial results if you could do a better job in new product development (e.g., more product provisions, more new products, better expenses, happier field, more sales)? All of these elements go into trying to answer that question. Does

your final product hit the mark with all of your customers? Your customers in this case are clients who will buy it: the agents who are looking for the new product and begging for it and the corporate department who wants profitability. So there are different customers out there. You need to figure out if your product is going to hit the mark or not.

Let's discuss some typical problems found in the product development process. Kelly talked about the inefficient decision making process that can occur when you gather the big team together represented by all different areas. Often the true decision-maker for the team is not involved in every meeting; instead they send a subordinate to attend. The subordinate often can't answer questions or has to go back and have questions answered from the true decision-maker for the department. This causes delays and hampers the process, although it could be improved pretty easily. Chart 4 highlights some typical process problems in product development.

The criteria for what constitutes a successful product may be unclear or undefined. Again, consider what is your goal? Who is your customer? Is it the agent, because it's a niche market? Or is it a customer looking for policyholder values? Or is it really a profit move because there's room to get more profits for a particular niche? In addition, what constitutes the success of a product?

The project manager may have responsibility but little authority. They also probably have other things to do aside from just managing this project or product-development efforts in general. The project manager isn't listened to; often they are typically not a person who is in a high level of authority. And that's going to cause problems for somebody trying to facilitate and run the process.

Rubber stamp approvals are another problematic issue. Product iterations may go inbox to inbox and sit in each for one, two or three days. You can really lose time that shouldn't be lost. Then, by the time somebody gets around to reviewing something they say, "Yes, this looks good pass it on," only to object at the next iteration of what they just approved.

Chart 5 outlines additional process issues involved in product development. "Scope creep" is probably the largest problem. I'm sure all of you have seen specifications or features constantly changing or added. Field force focus groups are great. They really give you a feel for what the agents want, but sometimes they need to be reined in because they want too much in too little time. That can delay things. So locking down early those features that are really important to the market that you're going after is critical. Also, keep day-two items to a minimum. Day-two items are items that we'll get to eventually for this product, such as an enhancement launch. But they often can impact day-one items, because someone has to spend time on them.

Also at issue is that priorities among disciplines are not aligned. For example,

admin issues can conflict with actuarial issues. Actuarial has new product development and product revisions. Admin has conversions going on, they're implementing new products. Everybody has different priorities, and trying to bring them all together is often a problem. As we discussed, unnecessary rework in that optimization phase happens where specs and assumptions are constantly changing. I can't tell you how many times we've had a finalized, defined set of assumptions to price a product, and then we had three or four additional iterations of chassis due to a change to the assumptions. These were not aggressive changes, because the competitiveness wasn't great—just changes like, for example, "try this mortality," or "you know what, we talked to this person and this is the wrong assumption, our investment results are a little bit different now." Also, can you drop the earned rate in your projections? It's incredible how much rework goes on over that.

Chart 6 outlines more product development process issues. Regarding the state filing process, although I think they are getting better, there are no real dedicated resources for the state filing process early on in the process. If you could start earlier in development, getting the forms and actuarial memorandums and the different certifications you need, will that help you be more efficient and timely in the filing phase? Another problem involves inadequate system resources for the implementation effort. We've all heard about the number of man-hours it will take to get a particular specification programmed, and while we've got the other projects going on we're also implementing a whole new term portfolio. This new joint life or universal life product is really going to be difficult to get out in time. So the system resources are typically where some of the biggest logjams can occur.

Product rollout efforts are also often uncoordinated and poorly planned. This should be a time when you have a party and get the agents excited about the new product that they asked for and you've given to them. Also now, you should be training them, teaching them the best things as well as the drawbacks about the product—in other words, helping them prepare to sell it. Often this does not happen. People think, "Okay, here's a new product, we'll give a mini rollout, maybe a one-page flyer," and that's the end of it. There could be more done to promote it.

Politics and finger pointing are another process development problem. There can be many layers of bureaucracy involved in trying to get a product out. For example, the corporate department or the CEO may get involved depending on the size of the company. If there are missed deadlines, somebody has got to pay, somebody did something wrong. Well, admin can't get this done. How is that their fault? Or a particular division says that actuarial didn't get a revision to it in time. There is always finger pointing, especially between those two departments. We've seen a lot of contention throughout processes with different companies among those departments.

Again, product development is a process. It's a process just like a process of developing a car or anything else. There are stages in it. There are clear paths to follow, where the only difficulty is coming up with a measurable statistic figuring

out how to improve it. It's much harder to recognize a process, for it is often intangible. The product development process is a complex, complicated, intricate combination of operations executed across departments with different priorities. All of the departments involved are interdependent on each other. It's very complicated to have that many people with different things going on to work together toward this process-development goal. What should be critical? The process is rarely codified and standardized. It's usually ad-hoc, although I have seen recently that people are making efforts to come up with a more formalized process to follow, which can then be more easily monitored and improved upon. But the situation is still far from what it could be.

Competitive advantages and the ability to execute are further process issues. And, processes represent an important key to execution. If you have a great process, how much better off could you be, from a competitive standpoint?

I will address some approaches to improving processes. There are many process improvement approaches out there. They vary in the amount of time, cost and resources necessary to pull them off. The major methodologies share some common traits. These approaches eliminate non-value-added work, remove inefficiencies and streamline the process. They define defects and then reduce them. Defining the defect is part of the problem in utilizing process improvement techniques. For example, consider the following. What is the defect? Is the product launched late? Are agents not happy about the product? Asking these types of questions will help define and reduce the defects.

The methodology and tools for evaluating and monitoring the improvement technique can vary as well. Is the process managed and evaluated at a very detailed level? Are there some broad tools that are used overall? Another difference in the process improvement approaches is the voice of the customer. Who is your customer? (I have brought this up a few times.) What are their needs and their wants? What are they looking for? Turn the answers to these questions into a measurable statistic and see how quickly you can get a product to them.

Approaches to improvement further differ by the level of people involvement versus tool or technological involvement. The roles of leaders differ by methodology. Do they need to be very involved? Do the leaders have to drive the process in the case of some larger efforts, such as Six Sigma or Stage-Gate™ process management, where there could be a high cost behind it? Also, consider resource allocations and the time required for obtaining results. How long will it take to get this done? Is it a yearlong project? Is it a three-year project? Can the process be broken down in two- or three-month manageable projects where intermittent processes are improved? Each approach will have its own design environment. There are many, many characteristics to be reviewed as process improvement techniques are examined.

Does choice of methodology matter? It is important to find a methodology that suits

your unique situation. What are the company's strategies? Are these long-term goals, short-term goals? Do you need to improve a process or build a new one? What is the strategy you're going after? What are the objectives of the process improvement? What are the goals within the timeframe? Regarding corporate culture, how does your company do business? How do you solve problems? Are people willing to change? Are people willing to come up with a new way of doing things if their job depends on it? Is the culture accepting of change?

The optimal solution may be a mix and match of methodologies. The process improvement approach could vary by project type or department. Different departments may need different solutions. Some processes may not be as bad as others. There may be six departments involved with a product development effort and how they contribute to the overall process needs to be examined.

Some of the issues to consider in determining the scope of the problems you are defining for improvement are the following: departmental, cross-functional, across-multiple departments. What is the scope of the problem? Are they very large and in need of change? What are the resource demands? Are there low or high demands for the project? For example, for a Six Sigma improvement project, you pull a bunch of top performing people onto Six Sigma teams created to develop and improve process quality. Can your organization handle something like that? Everybody still has a lot of different things going on, a lot of different efforts. What are the resource demands? How do you measure payback? Is it an increased ROI from improved efficiency? What is the payback?

The few basic proven process methodologies include value-added flow analysis (VAFA), which is the most basic. This method maps and analyzes a process, breaks it down and identifies which components of the process add value and which do not. Then it attempts to improve the process by removing the non-value-added elements. You might choose VAFA, as far as the scope of problems, resource, and the payback analysis, when there's a departmental or relatively low-level problem—a visible problem that's pretty easy to recognize. The resource demands are pretty low for this type of situation. So if there is a high involvement in many activities this is something that could be done because it doesn't take a lot of work, and it doesn't take a lot of players. As a result, the payback can be pretty high because there's not a tremendous cost to it. And, if you can improve inefficiency, which it will, the payback should be high on that.

With the total-quality (TQ) methodology, you develop TQ teams and break down the process into manageable products. This was the first real step toward a defined process improvement approach. It uses VAFA, and that shows the power of value-added flow analysis as its starting point. It also uses the seven tools of quality control, which essentially are graphing techniques to measure, throughout history, the deviation in processes that you have had. There are many kinds of data diagrams and all different kind of graphing techniques in these quality-control analyses.

The Work-out method was honed at GE. It was their first major improvement effort. GE is now a very big player in the Six Sigma technique, they moved onto Six Sigma from Work-out. Basically, Work-out breaks down large problems into smaller ones as well. It improves on total quality and utilizes joint problem-solving sessions with senior people with the ultimate goal of coming up with a decision and a solution. Scope of problems can start to get pretty big on this one. If you need to handle across-departmental problems or multifunctional problems, the resource demand starts to increase. At first it's not a lot. Senior management tends to steer groups who are reviewing and fixing process and coming up with solutions. Initially there is not a large resource strain and it's not very difficult up front. But when implementing your decisions for solutions the resource constraints can grow. As you start to increase cost, time, and resource demands, the payback will be lower and you may need other measures.

Six Sigma is a statistically based, problem-solving method. It improves quality and it reduces the variation of the processes we have addressed. It very much deals with defining the process and trying to reduce variation. It uses statistics to quantify the root cause of the quality problem. It's a scale of process quality. It measures again the deviation of process. It has a Sigma in it, which typically you would think would make a lot of actuaries happy. Not a lot of actuaries or life companies are employing Six Sigma, because of a perceived difficult transition of utilization in a manufacturing process environment to utilization in a life company, product development environment. That is, how does it apply to a life insurance product development process?

Six Sigma builds on product improvement approaches, but it gets far better results. Large companies such as Motorola, GE and Allied Signal are using Six Sigma. Allied Signal started with TQ 10 years ago or so and then went to Six Sigma. GE is very big on Six Sigma, which they use for services as well as physical products. In fact, GE has been using Six Sigma on all their businesses for probably a few years now. Even as early as last year we were discussing with some GE Life folks how they are trying to apply Six Sigma to their life product process. So it can be done. It's a stretch, though, and that stretch often turns people off to looking at it.

The three major methodologies of Six Sigma are DMADV, DMAIC and process management. DMADV essentially is the new process development for those who don't have a process. DMAIC is for improving current processes. Process management is putting something in place once you've improved your process, to allow for continuous improvement and ensure that what you've done doesn't go unheard or ignored.

In the case of process improvement, Sigma is used to measure the likelihood that a process will meet customer and business requirements. If delivery time to market of a life insurance product is what we're measuring, and in a high Sigma environment, and let's say the failure is too early or too late (of course too early is probably not a problem!) Chart 7 shows the measurement of the Six-Sigma

process. The tails are very close to the mean. In something with a lower Sigma process, let's say it's Three Sigma, or Four Sigma, the tail starts to go into the failure zone. What statisticians have found is that there is, more likely than not, up to a 1.5 standard deviation shift in that center point throughout the process life. In the low Sigma environment if that means it shifts over to the right 1.5 Sigma, much more of the tail will be in the defect zone. Let's say we're in a Four Sigma, or a 3.8 Sigma environment, for low Sigma environment, and we had 6,000 to 7,000 defects per million, when you shift over you've only got approximately 93 percent of the area under the curve. All of a sudden you're up to 70,000 defects per million to get down to a Three Sigma level because of that shift.

On the Six Sigma side of things, trying to operate at a Six Sigma level of quality is what you're ultimately trying to do; Five Sigma or Six Sigma. It's operating at that level of quality, and defining what that means, that is really the struggle for the application of Six Sigma in the life insurance industry. But if that shift occurs in the Six Sigma environment, or even a Five Sigma environment, the tails don't go into the defect zone. Because you've got such a narrow curve you're able to still keep defects to a minimum if you can attain that higher Sigma.

I think the average company operates at a 3.0 Sigma, which would be 70,000 defects per million. Defects again is the key—trying to define what that defect is. Is it late product launch? Is it that the agents aren't happy with the product because it missed the mark or goals? Or is it even something more refined in the process of communication breakdown? (e.g., "How long did it take somebody to answer my e-mail when I sent out that iteration?") It's kind of difficult to define defects when you're working in the life insurance industry. If I remember correctly, a Navy Air Force plane accident has something like a 5.7 Sigma. So in other words, launching and landing of Navy jets operate at 5.7 Sigma, which is obviously very low. Airlines are actually over Six Sigma now: 6.2 Sigma, which is pretty good. Incidentally, the IRS tax advice phone line, where you can call in and get tax advice, operates at a 2.2 Sigma. That's no surprise.

For DMAIC versus DMADV, the first three letters are the same: define, measure, and analyze. We'll go over these in a minute. The IC for DMAIC means improve and control, again because you're improving an existing process. DMADV is when you're designing and verifying, because you're developing a new process. DFSS is just another acronym for DMADV, where you are designing a new process for Six-Sigma quality. That's what DFSS stands for. The similarities are that both attempt to drive defects to a very low level. They are both very data-intensive, fact-based and statistically based. "Belted" team members implement both. The term "belting" refers to martial arts, and implies a level of discipline and mastery, and the Six-Sigma quality was built around black belts and green belts and the whole belted world. We'll get into that as well.

Process management is a procedure implemented to measure the effectiveness of your process improvement. You have to see where you've come from, where you're

going, and how much happier everyone is going to be ultimately. Of course, you want to ensure the ongoing improvement of the process. If there are new developments in these older process improvement approaches, which there often are, new case studies may come out that may relate better for you. You may get some ideas. Ongoing improvement of your process is still key. With DMAIC we see powerful road maps for process improvement. There is the use of graphs and pathways, which are good because these are trying to get people thinking of flow-charting and critical path management. This really helps to define processing. The acronym DMAIC stands for define, measure, analyze, improve and control. Chart 8 illustrates this. In the define stage you're coming up with your charter. What is the problem? What is the definition of what you're trying to fix? You define your voice to the customer. That's the measurable statistic. What is it we're trying to fix, based on what the customer needs and wants? For example, how quickly do the agents want this product? If they need it in three months, can we get it? That's the voice of the customer. You do that through SIPOC and CE matrixes. These are two methods; there really is a bunch. But SIPOC essentially determines all the elements of the process that you're looking at: suppliers, inputs, process, outputs and controls.

CE matrix refers to a cause-and-effect matrix. For example, what are the causes of your problems and what are the effects these are having? Once you've gone on from the definition stage to the measuring stage, you're trying again to measure the process and determine your current performance, but also measure your defects. What are the units? What are the metrics? What are we trying to find here? You need to develop a data collection plan and a plan to compare your process to that of your competitors. How are they doing in the same process? How quick do they launch products over your launch?

Gage R&R is a measurement system analysis. How good is our measurement system? Use control charts and determine your Six-Sigma capability analysis up front. How well are we doing now? Are we Two Sigma or Three Sigma—with the average company? What do we want to get to?

Once you've measured, and you come up with your metrics and your plans for moving forward, you get into your analysis phase. You use various techniques, regression analysis, ANOVA and all the different analysis techniques we've seen. Process analysis is for your cause-and-effect relationships. The improve stage is where you come up with solutions. You eliminate defects and come up with solutions for keeping them eliminated. Risk analysis is for the failure motive of your new techniques. You've got these improvement techniques; what's the risk of them failing? You test what you have come up with. You're piloting, and then planning for the transition to your new and improved process method. In the control phase you want to control future process improvements. You document what you've done, you want to be able to teach new people and have experienced people who are in on this change be able to update the documentation and track anything new and or any improvements. Then, of course, monitor the results to see if you're getting

where you really intended to get.

In the Six-Sigma organization, as exhibited in Chart 9, every player has a role. Every player needs to have a consequence for not following through or a reward for following through. The senior leadership council drives everything. They inspire the process; of course, they have to because it is a pretty large effort. They pick a champion who is a high-profile individual. The champion has his own project. Champions really do the team development and start to bring those employees together who can best develop the team. The master black belt is often an external resource, a Six Sigma expert who understands it and who can apply it to your business. The master black belt will come in and teach you, help you track the results and help you report the results to the senior leadership council.

Black belts and the green belts are the people who do the work. The black belt somewhat manages the green belts. Black belts have high intellect, high drive, can inspire passion, get the job done and think outside the box. The green belts push a lot of buttons, but are critical to the process because they're going to be marching through most of the work. The money belt is all-important, of course, in determining how much money to give to this project. Do we continue giving money if we really don't see any results? So try and get someone from the leadership council on there as an incognito operative or something like that so they can get all the money you need. It is expensive, but the rewards are dramatic if you can apply it to your business.

Stage-Gate™ is another major process, which is probably a little more easily applied to life insurance. It's a conceptual and operational roadmap for moving a new product project from idea to launch. This is going to look a lot more like the graph we saw in the beginning of my presentation: concept, development, optimization and those various areas. It fits nicely into a life insurance product development. It's separated by time sequence stages, separated by decision gates. The decision gates are go/kill decisions after each stage. For example, do we go on or do we stop? Do we go back or do we go forward? The stages separate every decision gate that you go through.

In Stage-Gate™, multi-functional teams complete related cross-functional tasks within any given stage. Each stage has a representative from each department, and they're all moving their work forward as quickly as possible within that stage. For the filing example, this would be getting people developing or revising new policy forms and getting legal involved early on. The Product Development Management Association (PDMA) said that 68 percent of leading U.S. developers use some sort of Stage-Gate™ process. Again, this is probably developers in the tangible product sense of the word. It's still pretty infrequent that people try to apply it to the service industry. Although, it's getting more frequent and could be especially useful in the life insurance industry.

Chart 10 shows a Stage-Gate™ diagram, providing an introduction to Stage-Gate™.

Paul is going to go through it more thoroughly and apply a practical approach to it, so I'll just touch briefly on what some of the descriptions are for the components in the graph. The stages contain sets of defined concurrent activities—what are the characteristics and what we are trying to do. They incorporate industry best practices with any stage. What do you do when you're trying to find a product? What do you do when you're trying to screen it? What do you do when you're trying to optimize it or iterate for the best possible form? Best practices get into each stage. It has parallel execution, which we've discussed, and it is probably very important to the process to have everybody moving along at the same time.

The Stage-Gate™ process incorporates cross-functional teams with the same goals at any given stage and overall. For any given stage, the same goal is to get to the end of the stage with what you were supposed to complete and hit that decision gate.

The gates are the decision points where you decide on a go, kill, hold, recycle, shelf or whatever it is we do when we come out with a product that didn't quite get us there. The senior leaders are involved and drive those decisions.

Quality control checkpoints are very good at checking the progress of the process, finding out where you're lacking, moving things forward and controlling the level of quality. Again, it's a defined process within a defined picture. Questions proposed at this point include the following: Is the project meeting its deliverables? Is the project still attractive economically from a business standpoint? Are we spending more money than we need to? This is an incremental process-improvement technique, meaning there's more money spent upfront. It's done in increments.

The process shows, through these gates, incremental movement through the process. So although there's more work up front in defining it, in the long run it can save money by having all these incremental outpourings of money as opposed to, "well, we're going to spend \$150,000 on this," and the project may end up going up in cost a couple million dollars. This way you can track it as you go along, so if something happens you didn't spend a large sum of money and then decide against the project. Is there sufficient information to make the decision? Do we need to go back into the stage and do some more work before we decide?

Again, gatekeepers or senior team decision makers are from different functional areas. They use pre-set criteria and rules. What are the inputs to the decision? What are our comparisons to the decision? What's our benchmark, and what are we trying to get? What's our output? Do we go forward, or do we not go forward?

There are many Benefits of Stage-Gate™. It's a more complete process. It's very difficult to miss a stage or an item. It's now a tangible, relatively simplified process. There are clearly things you can see and try to improve on and clear requirements for proceeding. Expectations are written through the use of these gates and the definition of the deliverables. It improves focus and potential redirection. Discipline

is added to a complex process. Again, it is a very complicated process. Discipline is very important and probably not all that difficult to implement. Resource commitments are in increments. And speed to market dramatically improves through the parallel processing, which should make everybody pretty happy.

Why improve now? The life insurance product environment is definitely dynamic and changing. There are different products and different niches being developed. People are looking at how to handle new regulations and what possible new regulations may be coming up. Looking at the interest rate environment, we will continue to see product shifts. As with a year or two ago when the shift was away from variable products, it's a very dynamic and changing industry and there is very intense competition. Everybody is trying to figure out what they can do. There are people leaving certain markets sooner than they would have before because they want to redirect their resources. Expense management concerns, tightening of expenses, pricing with more aggressive expenses are all factors, and of course, you have to meet those more aggressive assumptions. But you've got to do it in order to have that product be anywhere near the competition.

Innovation and new product development efforts are changing every day. With regard to coping with sweeping changes and regulations, there has been a lot of regulation and there will be more regulation, I'm sure. The 2001 CSO is a good example of a major regulation change if it's anything like the change in product development revolution that went around in the 1980 CSO launching.

Generally there are no major product changes. Product structures must be brought into compliance with the 2001 CSO: Impacts will be seen in state valuation and nonforfeiture, federal tax reserves, definitional limits and testing of these definitional limits. There is a need to evaluate admin systems' readiness to handle all this. Therefore, there still will be a large effort. Competition is intense. The competitors are out there. Are they looking at the impact of the 2001 CSO yet? We see people are starting to look at it more and more. And, are you starting to look at it, is really the question. Competition will be pretty intense on keeping market share.

Product resources are scarce, as we all know. There are new development efforts, and there are redevelopment efforts. On top of that we now have to bring an entire portfolio worth of products into a new compliance. Significant effort will be required and planning is critical. What are we going to do? How are we going to do it? Do we need outside help to learn how to do it? Do we need outside support doing it? What kind of resource allocations are we going to make?

The CSO table will present a challenge. Do you need to worry about it? "No" is not an option. Everybody needs to do it. A company really needs to focus on product and process issues, and now is the time. There is no reason to really wait. You could probably go full-force into product readiness assessments. Judge your readiness for converting products and what products you're going to convert and

why. A product readiness assessment is a process. Get ready to handle that conversion. Can we undertake something this large in tandem with all the other things we do day-to-day?

A product assessment is designed to determine the effects of the table on the financial results and competitive positioning of your existing portfolio. You could perform the assessment and develop reports and internal documents for when the right parties are together at a meeting. You can discuss what was found, for example, "here's what we need to do by product line or by portfolio," or whatever your strategy may be. Maybe start with a baseline financial and competitive analysis of your existing portfolio. Where do you stand now? Maybe you need to look at repricing, which probably is good to do anyway, to see if your products are meeting their marks. Then input the new tables, change whatever you need to change on the valuation and nonforfeiture basis. See what the effects of the CSO table are. Outline your product structural changes. How are you going to handle the decrease or increase in profitability relative to the new table? This all develops a basis for your portfolio conversion plan. What are we going to convert and when?

The scope of the product readiness assessment depends on the size of your portfolio and how many products you want to review. You may decide to review certain products that you feel are more critical. This ultimately is going toward development of a portfolio conversion plan. What do we convert? When? Do we do term first? Do we develop any rules of thumb? As the investment orientation of a product increases so does the putting off of its conversion because we feel that's going to be hurt by the definitional limits under the new CSO table.

But it also gives you a chance to perform a product strategy review. With regard to portfolio rationalization, are we in the right markets? Is this product still meeting what we want it to meet? Why not take this opportunity to rationalize what businesses you're in and perhaps change them? Do we come up with a new product strategy? Should we launch anything to get into any new niches as a result of this? It's an opportunity to really examine all of your lines of business.

For the process assessment, are your processes ready to handle what needs to be done? Do you have a plan to prioritize your portfolio conversion and allocate resources? What's your plan for process improvement? Should you need it? Let's assume that in some fashion you do; everybody probably does. It can be done through a series of process-improvement projects. Whether they're within each department, you have a process improvement effort. Or is it "let's get the life product development group together and have everybody work towards developing that process through a PI project?" Do you have project management people and process management people in place? Determine leadership support, depending on the cost and the resources. You have to worry about leadership support and product change support from the field, from the customer standpoint and from the corporate standpoint.

Get started on a process assessment by developing a series of mini projects. Break your product development process into efforts of actual sizes. Results at the end of two or three months would be great. Keep management involved. Keep people excited that you're making progress. Breaking up that complex process that we saw would be pretty important. Settle on a methodology to be used overall and for each mini project, over each department, for example. As we discussed, not every product-improvement approach works for every department or across departments. There may be a need to utilize different tools in each. Prepare and begin the need for training and coaching. It's very difficult to change process, especially if you think it's working okay. Because "okay" is just not going to be good enough. So being able to teach your workers what they need to do to attain the new goals and the new measurements is going to be tricky.

Explore all the project staffing options (internal and external expertise). Again, do we need help learning this product-improvement approach? Should we have somebody facilitate this if it just makes sense? Do we need help doing the work because we just don't have enough resources? Internally, do we pull prime-time players, who we will need if our plan is difficult, off of their current projects and put them on this process improvement team? That's something that I've seen done that worked tremendously well, but again, it disrupts other things that are going on.

It must leave behind a dashboard of performance that predicts problems and then leaders who will use the dashboard for corrective action. So you've got to come up with the dashboard showing what goals you're trying to reach and what you need to do to be successful. You need process owners who are accountable for ongoing operations in process development. Documentation of procedures and policies under the new process regime are necessary so new people have a book to read, and old people have a book to update—a business model of processes that links to the business strategies that forced this entire effort.

So the time for process improvement is now. The new CSO is going to force a re-engineering of your product portfolio. Again it's a great chance to improve, examine, and execute a new, high standard of quality within the PD process. Not enough people realize the importance of that. Every company should be reviewing their process through every product development effort. All process improvement techniques will leave in place a new visible process structure. Now there's something tangible to be improved upon every time it's used. And this process can be controlled, reused and improved upon through recurring process management activities with the right people in place.

I'm going to turn it over to Paul now, who is going to give you an application of process improvement.

MR. PAUL MYERS: Today's session is a teaching session, so you should all be able to walk out of here having learned something you can apply—some strategies, methods and tools that you can take back to your office. This session called for

"moderate experience." I think if you have less than moderate experience there is a lot you can get out of our time together today. There's a lot you can learn about the product development process. At the same time, if you have moderate or advanced experience, I still think there's a lot you can learn. As I talk about some of the lessons that we learned as we improved our process and some of the tools that we used, you may have learned some different lessons or you might have used some different tools - which could lead to some interesting discussions. Of course, we'll also talk about saving some time and money.

As defined in the American Heritage dictionary, a *process* is "a series of operations performed in the making or treatment of a product." So, by definition, everybody has a product development process. Now whether yours is formalized or chaotic, like ours once was, you have a process. The other thing to note is that every process can be improved. I would love to be able to stand up here and tell you as I go through this case study that over the last two years we improved our process and now it's perfect, that we're at Six Sigma or even better—Seven Sigma—but it's not true. It's not perfect. But we have learned some good lessons and we have made it much better. Like I said, if you have more experience or less, what matters is the concept of "continual process improvement." You have to consistently update the process and make it better.

What I'm going to talk about in this case study is the process improvement experience that we went through, some of the lessons we learned, and again, the concept that continual process improvement never ends. I'm going to do that by walking you through a timeline, taking you through my experience with this over the past couple of years, and then move forward looking into the future.

The initial problem that we had, if you go back to 1999 or January 2000, was a very chaotic product development process. It was very much like what Phil described, where you have many different activities, but it was not organized or formalized. We had issues like "too much rework." I think everybody can relate to the situation in which you're developing a product, you're about to implement it, and somebody in marketing comes in and says, "You've got to have this feature, and if you don't get this feature in, it's not even worth launching the product." So all of a sudden everybody is scrambling around. They're rewriting the specifications. The IT people are screaming. The pricing memo changes, etc. We had a lot of that going on. It was a big problem. There was way too much rework involved. We had unaligned resources. We had our product development actuaries, marketing people and our IT people, but they weren't ideally aligned for an effective product development process. Things obviously were not timely, and we had a lot of decision points. Decisions were made, but there was no formalized process of when they were made, or what decisions should be made. There was not enough homework being done.

In the marketing example that I talked about, if we had done more homework up front, then nine times out of 10 we probably would have figured out the issue up

front. But that wasn't being done because there was no formalized process to make sure we did a comprehensive homework study. That starts us out on our timeline, beginning with January 2000.

My supervisor and her counterpart, who were the two heads of our individual division, approached my counterpart and me in marketing and said, "You know we've got this chaotic process." We drew it up on the white board; we had all these different pieces, and a lot of stuff that Phil talked about. My supervisor and her counterpart said, "We need you guys to bring this all together in a formalized process and by the way, we'd like you to present your approach at our sales meeting next week."

Over the last couple of years there have been a lot of sessions at meetings such as this on improving the product development process. I can't remember there being many back in the 1990s. That left us with no real insurance industry experience to work off of. So we thought, "We're in the insurance industry, but we're not the only industry that develops products. What do some of these other companies do? How do they handle their product development process?"

We did some research by leaving the office and heading out to the bookstore where we found a gold mine. We found a book called *Product Leadership* by Robert Cooper. In the book Dr. Cooper introduced Stage-Gate™ that Phil talked about, which has actually been around for 40 years. It's used in many industries, probably industries that everybody in this room has used in the last two days that you've been attending these meetings—companies like Kodak, Polaroid, Microsoft, IBM, Hewlett Packard, American Express, Visa, and even Guinness. I'm sure many of you have used products from these companies over the last couple of days.

Stage-Gate™ was our initial solution, but that wasn't going to be enough. I mentioned that we had unaligned resources, so we recognized that we had to reorganize our actuarial and marketing areas. The way we decided to do that was to have a pricing actuary and a product manager, who was on the marketing and market research side, aligned by product line for variable life, universal life, critical illness and whole life. We teamed our actuaries with a counterpart in marketing to take the process from start to finish.

What are Stages and Gates? Basically Stages are where the work gets done and Gates are where the decisions get made. You follow a process by which you do some work, you make a decision, and maybe you narrow down your scope. You start with a big picture and you narrow it down. As you move along, you get more focused and you spend more money. Gates really serve as the quality control checkpoints. These are the points where you're meeting with the steering committee, and the steering committee gets inquisitive about the people doing the work—the pricing actuary and the product manager. They're checking the quality of the work being done in the early stages; they're making the decision whether to go forward or to kill the project. In any particular Stage you also determine the path of

the next Stage. Once you make the decision to go forward you say, "Okay, here's what you need to deliver at the next Gate meeting. Now go do it."

In the Stages, you're running parallel activities. It's not just doing one activity and when that's done you go from there. The process is aligned so that you have many different activities going at once, to get it done as quickly as possible and as efficiently as possible. Each stage costs more; as you move along the process, you start spending more money. The "big money Stage" takes place when you get to implementation—when you get your IT people involved, your illustrations and your state filings. You want to make sure you make the best possible decisions up to that point.

The Stage-Gate™ process, as outlined in Robert Cooper's book, is a five-stage, five-gate process. It really starts with a phase called Ideation. Ideation is a phase where you're creating different ideas. These ideas could be coming from marketing, it could be a pricing actuary who came up with this idea, an agent, or in our case, a regional director. In implementing this process we came up with new ways to create ideas. We brought in sales people; we created surveys that we conducted over e-mail; and we came up with some methodologies, as part of our process, on how could we get more ideas in-house and bring all these ideas together. Our product manager came into initial Gate meetings with a whole list of ideas. We tried to narrow it down, at that point, to our top ten ideas, which we took into the first Stage. Stage one is the preliminary investigation. At that point you're not carrying out much work and you're not spending much money, but you're looking at things like, "How does this fit in our market? Are there any regulatory or legal issues that we need to be concerned about? What will this project cost? Do we have the resources to look into it?" It's a stage where we look at the big picture and determine whether it's worth moving on and digging in a little deeper.

At that point you go to Gate two, and of those ten ideas, you really try to cut down to your top three ideas based upon the preliminary investigation. Stage two is when you really start doing some heavy homework. The idea is to come out of Stage two with a business case. We defined a pretty detailed business case, where we were actually pricing a cell for all ages for a preferred plus, non-tobacco class, for example, and testing for profitability. We also did a budget appraisal to determine whether we had the resources to get the project started. Once a business case is developed, there is the Gate three meeting, which is a critical meeting, because when you come out of that meeting now you're going to start spending some heavy dollars. You want to make the best decision at that point.

Stage three is the development phase. It's when you go through the full system implementation, the state filing process, and really run through all your implementation processes.

Stage four is when testing and final implementation takes place. Gate five is really the last opportunity to kill a project before it hits the street. Once everything is

ready to go you have your Gate-five meeting. If everything is still a "go," you hit Stage five, which is full production and market launch.

There is one final phase at the end that we have called post-implementation review. After your product is out on the street several months we like to look back at two things. We look at our process and say, "How did the process work this time and what improvements can we make? What lessons have we learned? What changes can we make?" Then you also look at the product that you've developed: Is there anything you need to do to the product? Should you run it through Stage-Gate™ again for an enhancement?

That was our proposal. We knew what we wanted to do. We wanted to go with Stage-Gate™, and we were going to realign our resources. The next part was implementation, and that's really what we're going to talk about today. I'm going to get into how we actually implemented this process. The reality was that we had a great process in mind in February 2000, but we didn't have the resources at the time that we needed to implement the process. What we had to do was plan six months out. We got a lot of the senior people who needed to be involved in the implementation process, and we made this implementation part of their goals. We developed what we called the Product Development Task Force. This included the heads of the pricing area, marketing, sales, state filing, underwriting and others involved in the product development process.

From that task force we developed seven working groups. We had a working group for each Stage, including Implementation and Post-implementation Review. The working groups went through each Stage in detail and defined exactly how the processes would work. Depending on the scope, there were two to 10 members per group. Stage three had the biggest working group with 10 members. There was a ton of work to be done at that point. It really was a two- to three-month intensive process with weekly meetings. We called them working meetings. There was homework to be done each week, and it was a big project that required a significant effort.

A big focus of these working groups was to develop templates and the processes. For example, we developed a product spec template to be used by all areas. The problem was that we had a couple of different admin systems that we used depending on the product, and each admin system had its own required spec document. Our non-par illustration system, par illustration system, and corporate-owned life insurance (COLI) illustration system each had their own required spec document. The working group got together and said, "We've got to develop one spec document and it's got to be the same for all administrative and illustration systems." We did that same type of exercise in many, many different areas. We invested the time and came up with templates for our product specs, pricing memo, legal assessment, etc.

One of the most important and time-consuming templates that we developed was

the "decision criteria." In the Gate meetings you are making a decision on whether to go forward with a project, kill it, or put the project into an idea vault. If a particular idea or project is a good project, but not ideal at that point in time, it would go into the idea vault to be evaluated at some point in the future. These decision criteria are basically the measures used to make your decision.

The criteria that we developed for the first few stages were, at a high level: strategic importance, competitive advantage, market attractiveness, core competencies, feasibility and financial reward. We developed sub-criteria under each like: sales potential, distribution fit, time to implement, resource availability, operations impact, profitability, budget appraisals, that type of thing. We had about 10 different criteria, and we had to come up with weights for each. For each idea, we would determine a score against these criteria, apply the weights, and calculate a weighted average score. The highest score determined the best idea.

Developing this list and the weights was a very time consuming and difficult exercise. To check our work, we took some old projects that we had implemented in the past and run them through our criteria. We also took some projects we had implemented in the past, but in retrospect, we thought shouldn't have made it through. We put these through our model to see what it would recommend. Would we have killed the project with this model?

Implementation became an academic exercise. What I mean is that as we were applying the weights and having discussions, it got to the point where we decided that we had to run it through a real-life situation and stop playing the "what if" game. That's when we came to the next phase of the timeline, when the process became active.

Initial Results. We had formal gatekeeper meetings. We had formal decision points. We knew exactly what decisions had to be made. And these meetings were formal. At the business case meeting, the pricing actuary and the product manager were coming in with a business case with 20 sections that we defined, with everything detailed. They were giving PowerPoint presentations. They were doing great homework. Since we implemented this process, we have not had a marketing situation where an idea came to the table "too late." We don't allow it. There is some flexibility, but basically we do enough homework up front so that we don't have to do rework. We had great documentation and we had a very set structure with universal acceptance.

Some Success Stories. Some tough decisions were made to kill projects that I think in the past we probably would have decided to implement. But the decision was now made: "No, this project no longer makes sense." It made sense when it was in ideation, but when we got to stage three, about to pull the trigger, the markets had changed, some of the pricing issues had changed; it no longer made sense. We killed a couple big projects that in the past we probably would have gone forward with.

We had some new collaborative product development opportunities. In the ideation phase we brought in some salespeople and developed a product specifically for them. We hadn't done anything like that before. We had talked about it, but we didn't have a formal process. It was so easy to do some of these things. We developed niche products that we hadn't been able to do before. We launched more products than we ever had before.

Unfortunately, it wasn't all fun and success. There were problems. One problem I would point out is that we only had about 95 percent acceptance. This is a big challenge, and I think everybody probably faces that. When we were putting our task force together we tried to get everyone involved who should be involved. Inevitably you're going to leave one person out—all it takes is one—a chain is only as strong as its weakest link. For example, suppose you have a variable product that you're trying to implement and the person who is responsible for the financial data that needs to go into the prospectus was left out of the task force because they're only involved in that one piece of that one product line. Now all of a sudden it's not their priority. They don't know anything about Stage-Gate™ because they work in a different area of the company. It's slowing down your whole process. That type of thing was a big challenge. It's something that you'll have to attack with the "continual process improvement" concept.

There was some perception that the process caused longer timeframes versus shorter. This is a challenge because, if you're going to do more upfront homework, the idea is that you do spend more time upfront, but then you can fly right through the end and get the product out. The problem is when you're upfront doing all that homework and you've got some people who are part of that 5 percent who you didn't think of in order to get their buy-in. They're looking at it saying, "This process is taking forever; Stage-Gate™ is no good; it takes too long." But they don't understand that the idea is to do the bulk of the work early on so we can fly through at the end and have a shorter timeframe overall. That was an issue we faced.

Eventually some of the inflexibility we had led to abandonment. When I say led to abandonment, I mean for certain projects. For example, take a term revision. If we were just revising rates, nobody really wanted to develop this huge business case and have all of these meetings. They just wanted to get right to it. We didn't have the flexibility at the time that we needed. People started forgetting about Stage-Gate™. It kind of faded away. Now, the good news is that everyone still had the process in their minds and they still generally followed how it worked, but the formality was lost.

Some Lessons Learned. There were some process versus person issues. Anytime you talk about continual process improvement—and I've been through the Tatham bootcamp on process improvement—they tell you that if there's a problem, it's the process not the person. If there's a glitch in the system, the processing needs to be better defined. What we found was we did not have the ability in that two- to three-

month period to clearly define every step needed to price a product. As actuaries, it took us all a long time to get our FSAs. There's a lot of knowledge to be gained, and pricing is a very analytical process. We experienced a situation where a student wasn't qualified and we threw them into the process, but our process really did require the person to have a certain level of experience and knowledge. The process failed and we learned that until we were able to better define the process, we needed the person to have a certain level of expertise. It was an issue we faced, a lesson we learned.

Flexibility is required. This issue has come up several times today and this is huge. Suppose you are considering a term revision versus wanting to enter the variable life market for the first time. There's a much different level of documentation that should be required for those two decisions. However, our process as it was originally set up didn't say that. It said you've got to have a business case, and it's got to have 23 particular sections in it. That was a lesson we learned and something we needed to improve upon.

An owner was needed. In Cooper's book he talks about how you need someone managing all of your projects, an overall owner, a "go to" person all the way through. We didn't have the resources for that. To be honest, we still don't now. In our worldwide headquarters they have more resources than our U.S. division, so they do have an owner. It's ideal, but again, we need to be flexible enough because we don't have this person. How are we going to work around it? It is a problem, and it is a lesson we've learned.

Finally, we are much better than before. Even though we had that abandonment, everyone realized our system was so much better since introducing Stage-Gate™. We were doing so many new things, and it was just more efficient than we had ever been.

Improvements and Conclusions. After we had the process active for a little over one year we decided it was time to reevaluate. We kind of abandoned the formal process. We needed to take another look at Stage-Gate™ and see if we could make some changes. Again, continual process improvement is necessary.

The proposed improvements that our group came up with were pretty interesting. We changed our focus from the Stages to the Gates. In Stage two, the focus was on the business case. You had to do a lot of homework and pretty much develop a book that documented everything needed to make a decision. Well, we changed our focus to be on the Gate and on the decision that needed to be made. We didn't care what you brought into the Gate meeting; it just had to be enough to be able to make the decision. We knew the decision we needed to make. If it's entering a new market, you better bring in a very detailed business case. If it's a term revision, you might just need to bring some competitive comparisons, show where we are now and where we want to go. There is now a lot more flexibility in the documentation.

If you're going to be like us and just focus on the Gates, then you need to strictly enforce them. In the beginning we always had Gate meetings, but with time they started to fade away. Some of the Gate meetings weren't taking place. With this change to focus on the Gates, we knew we had to conduct each and every Gate meeting.

It is important to educate all on expectations. This goes back to the 95 percent approval that I talked about. You've got to get everyone involved. Once you go through the process once, you will learn who and what you missed.

Adding flexibility is absolutely huge. I keep talking about flexibility around the documentation. Another example is in the number of ideas; we originally said you need three ideas in a business case. The thought was to compare three ideas and the best was going to win. We're now saying that you don't need to do that. If you want to do a term revision, you can bring it in and present it on its own.

Finally, one of the bigger issues we came upon was we decided that we needed to add an extra Stage and an extra Gate, which is not in Cooper's book. We call it Stage/Gate 2.5. It's between two and three. The problem was that in the business case we were pricing one cell, say a preferred-plus class, all ages. In the past when we left that Gate meeting we were going into implementation. Well, sure enough, after going into implementation and beginning to price some other cells, you're saying, "Ah, gosh, you know we've got to do something with our commissions at our older ages," or "Our targets changed a little bit." The systems people are asking, "How does this rider work?" Well, the problem was that we really didn't think about those issues yet. We were just focusing on the one cell. It meant that we had to go back and change our pricing, or as Phil had mentioned, go to our corporate actuary to get approval and find out our surplus rate changed. By having Stage 2.5—where we are now doing our full-blown pricing and coming out with final specs and a final approved pricing memo before moving to the systems implementation—we think we have a much better process.

We've had some resource issues and have had to cut down on a couple positions in our area. In the past we had a pricing actuary for each product line, however, we've evolved, and now our actuaries work on all product lines. That's just a change in our process to help you understand how we've changed.

Now, moving into the final phase of our case study, our corporate headquarters in Toronto was looking at various issues like process improvement and globalization of resources, and Stage-Gate™ caught their attention. We shared our experience and our history with the process. It led to an international team with representatives from divisions all over the world. They looked at the product development process and came to many of the same conclusions that we did. They knew a formalized process was needed and they are formally requiring one in our pricing policy going forward. They decided that Stage-Gate™ is the process we're going to use. They also independently concluded that that Stage/Gate 2.5 is needed; including the

importance of focusing on the Gates versus the Stages and that the definition of the gate criteria is key. It was interesting to see them come to the same conclusions that we did.

If you've got more than moderate experience and you're here today, maybe the idea of leveraging resources is something you can take from this session. Thinking outside of our box in Atlanta and going international, we became exposed to many more resources. So much more work was done on this project because we expanded internationally. The international team developed an Internet site and since we started our work in 2000, Stage-Gate™ has actually formed its own company. They have consultants and they've developed software. Our international team purchased the software and customized it, so we now have new tools that we're going to be able to use. Stage-Gate™ will be in our international pricing policy beginning January 1.

And finally, let's talk about some tools to walk out of here with. The criteria list with weights is a wonderful tool. When you develop that list, you will be clarifying your focus for making decisions. The gatekeeper meetings are excellent tools. If you haven't held them in the past, you will now know when to make decisions and what decision needs to be made. Stage-Gate™ recently developed software, which is an excellent tool for managing the process. We also have a Lotus Notes database; you can use any database system to keep all of the documentation organized. I also mentioned several of the templates. The specs, the pricing memo—or whatever it might be—they are all great tools. The various metrics are tools. We've had to modify the Stage-Gate™ software to include our metrics of ROI and embedded value; the flexibility is there.

One other tool to show you is one that I present to our sales force twice a year when we have meetings with them. Now that they understand our process, I show them a slide like the one in Chart 11, which indicates product development status. All that I need to do is show them this slide and they know where we are in product development because they understand our process and they have seen this before. I can show them that we've launched our VUL, are about to make a decision on a second product, or that we're in the middle of stages with other products. It's an excellent tool. It's an excellent communication piece. With that, a picture tells a thousand words.

In summary, everybody has a process, and ours was initially very chaotic. Stage-Gate™ was our solution and it has gone through various reviews and it will continue to go through various reviews. Flexibility is the key. I can't say that where we are now is perfect, and I don't know if it will ever be perfect. But what I can tell you is we are much, much better off now than we were just a couple of years ago.

MS. LEVY: That's a lot of material. We might have time for two questions. Does anybody have any questions?

MR. MARK MCKARSKY: I'm a patent agent. My question for all of you is that you mentioned there wasn't much in the way of big product innovation. What would make that happen?

MR. MYERS: Our issue was that we were playing a little bit of catch up. We demutualized at the end of 1998 and we had to evolve from a par company to a non-par company. We did so by entering into the variable life market, expanding our term portfolio from basically nothing to four products, and expanding our UL portfolio from about nothing to four products. We're actually launching a variable life product today that hopefully you will agree has some innovative features within it. We're in a position now, going forward, in which we're going to be able to do a lot more innovation. Quite honestly we had to do quite a bit of catch up moving from par to non-par, but now we are in a great position.

FROM THE FLOOR: Inaudible.

MR. MYERS: There are some very simple things. We have an e-mail address that we publish where our sales force can send in product ideas. I mentioned how we brought in some field people to develop a new product. That was one of our biggest success stories. We had an ideation meeting, brought in our top agents for a particular product line, and we got the 10 of them together and said, "If you could have the ideal product, what would it look like?" They defined it and we delivered it. It became a quick seller. One of the biggest things with that was that when that product launched we already had people who were out promoting it. It was their product. It hit the street running in comparison to the products that we had done in the past.

Our product managers on the marketing side run various contests internally and externally that are used to generate new ideas. By having a process we have opened the door for so many people and their ideas.

MR. FERRARI: I just want to add that another good spot for that may be after launch. Paul showed in the graph the post-product review, where it's fresh in the agent's mind. They just got this new product, they know what they're expecting versus what they got. It may be a good time to follow up with questionnaires or whatever you used in the past with your agents to find out how the product did and ideas at that point for the next run.

FROM THE FLOOR: Inaudible.

MR. MYERS: The question was, have we had to explain to agents how "you've asked for this," but we deliver something different. We actually had to do just that with a project we launched in January. The problem was that the one particular feature that they wanted was going to delay the launch six months. We decided to launch the product in January and deliver the additional piece six months later. Even though it wasn't the best answer, with our new process in place they felt

confident that we would deliver and they were able to move on.

MR. GORDON GIBBINS: Almost any product that is launched these days involves reinsurance to some extent. I'm curious to what stage or stages that you involve the reinsurer.

MR. MYERS: It's really in the early stages, Stage two and Stage three, when you're building that business case. It's part of that pricing. Before the pricing is finalized we want to make sure we have the quote from the reinsurer and that we have a final pricing memo. Now on a term product, where we use our reinsurer quite a bit more, they're involved from the beginning. They're actually bringing ideas to the table.

MR. GIBBINS: As a reinsurer, you often feel like you're at the tail end of it.

MR. MEYERS: We're trying to enhance the process of getting that treaty signed before launch.

Chart 1

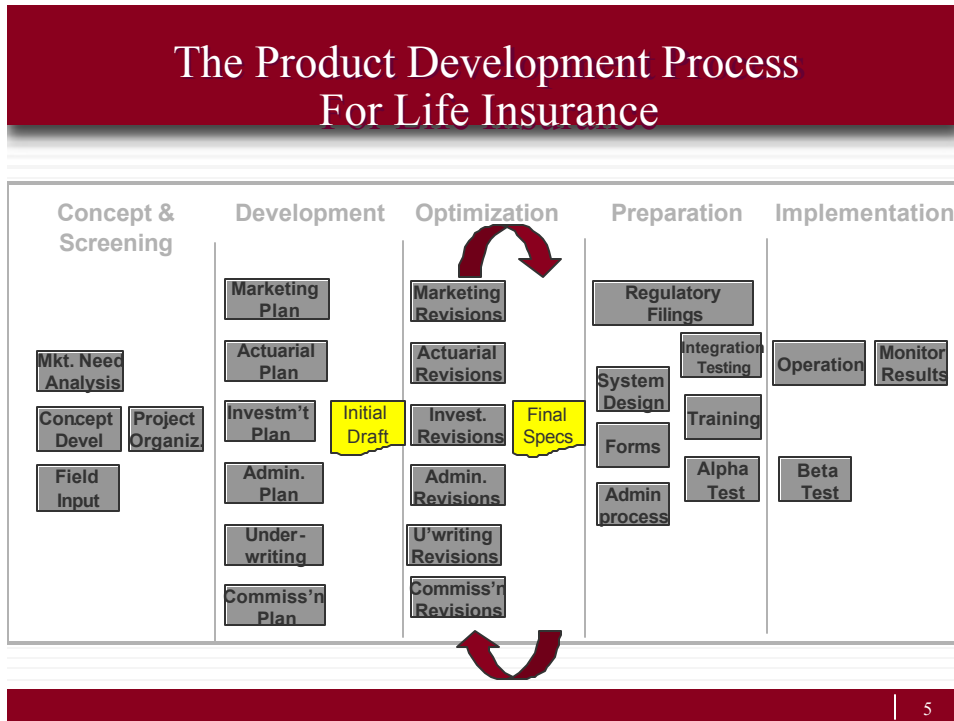


Chart 2

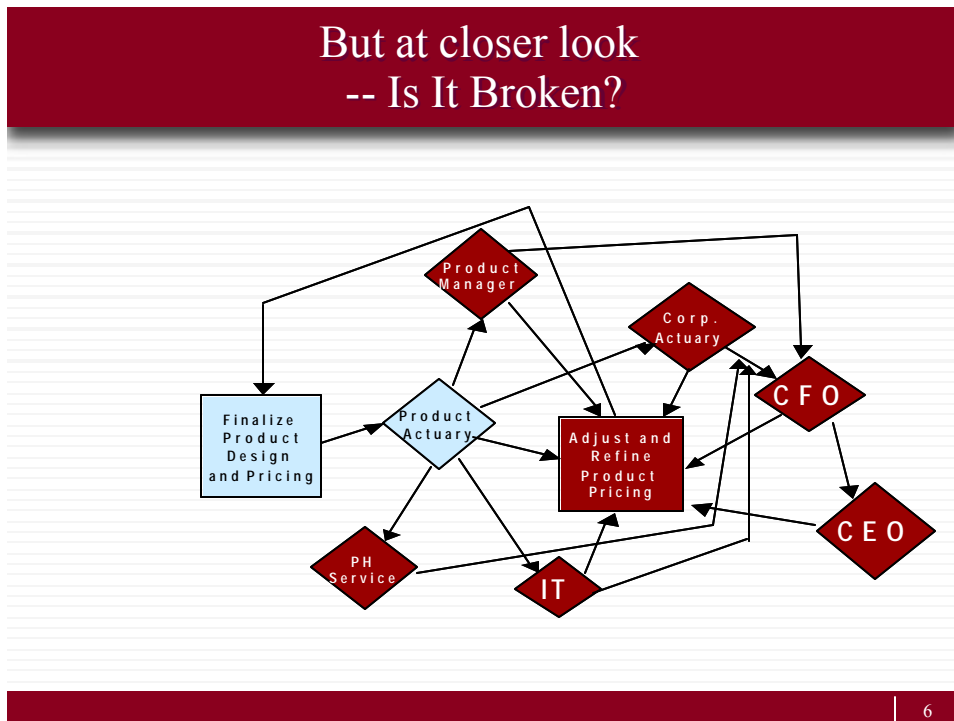


Chart 3

How well do Life Insurance Companies attend to “Process?”

- Based on the 1996 Product Development Section Survey:
 - Half of the respondents had made changes in the PD process in the last two years.
 - Most companies make significant product introductions every two years.
 - Average time 6-12 months.
 - Most companies desire to speed up the process.
- Other studies indicate almost 30% of life insurance product development efforts “fail”.



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Chart 4

Typical Process Issues in Product Development

- Inefficient decision-making process. Delays in approvals. (travel, inter-office mail, etc.)
- Criteria for what constitutes a successful product are unclear or undefined.
- Project Manager has responsibility, but little authority
- Rubber stamp approvals.



continued

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Chart 5

Typical Process Issues in Product Development

- “Scope creep” – specifications/features constantly evolve.
- Priorities among various disciplines are not aligned.
- Unnecessary Rework.



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Chart 6

Typical Product Development Process Issues

- No dedicated resources for the state filing process.
- Inadequate system resources for product implementation effort.
- Product rollout efforts are uncoordinated and poorly planned.
- Politics – Finger pointing!



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Chart 7

The Sigma Measurement Is Based on Statistics

Sigma measures the likelihood that a **process** will meet **customer** and **business** requirements

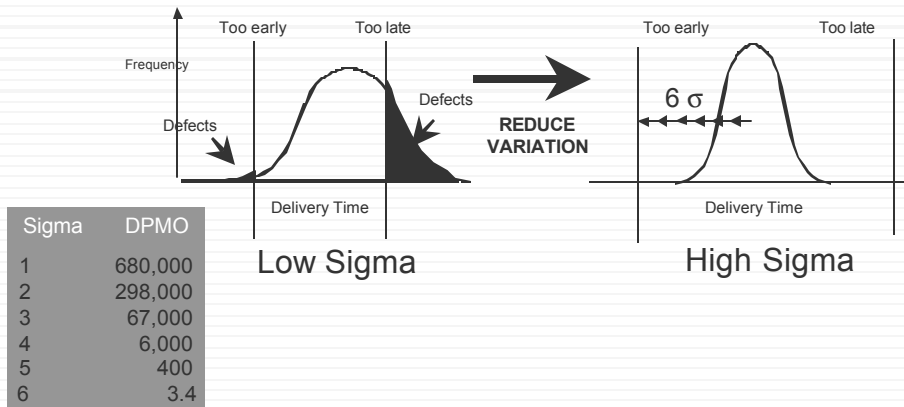


Chart 8

DMAIC: A Powerful Road Map for Process Improvement

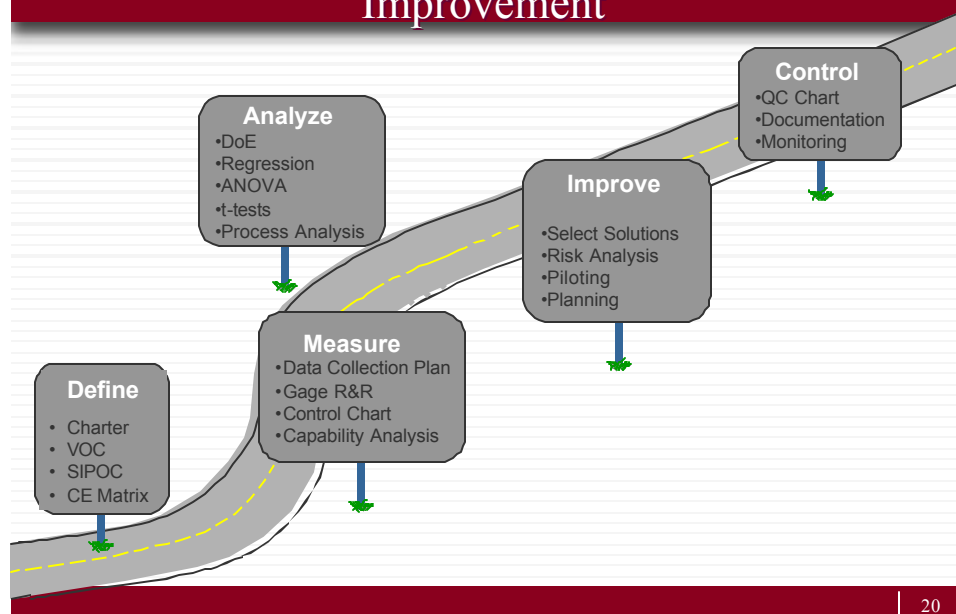


Chart 9

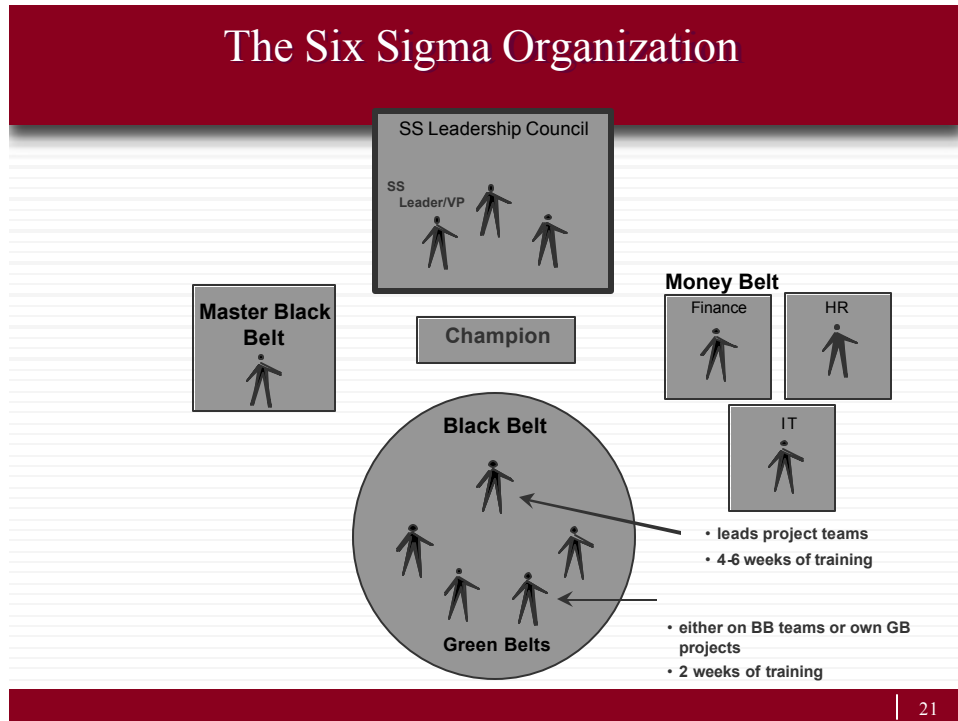


Chart 10

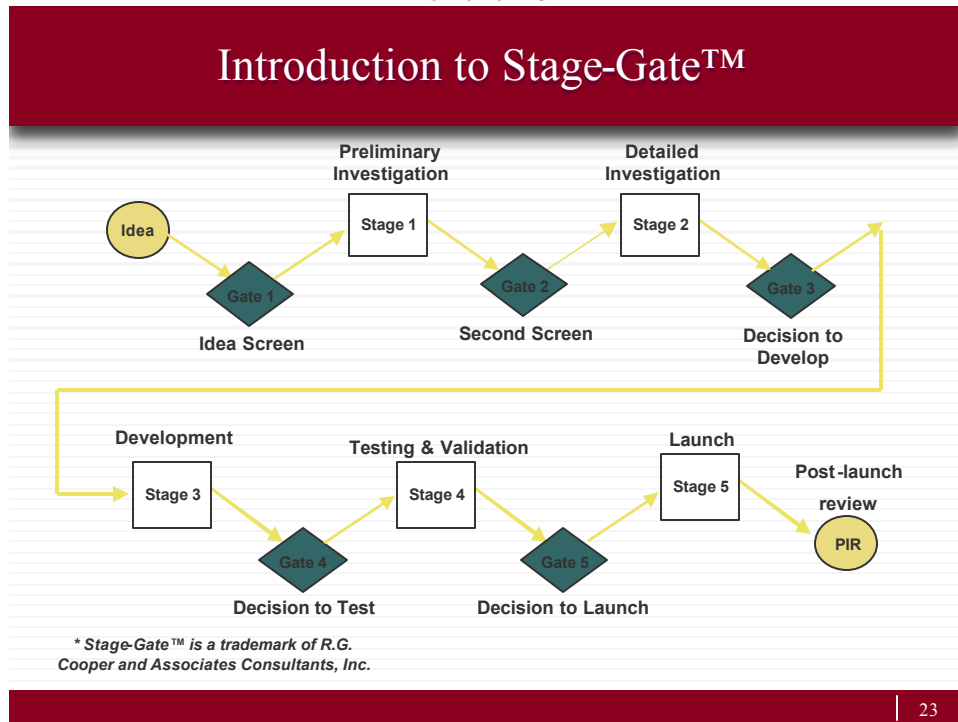


Chart 11

