

SPECIAL REPORT:

LEAN Reengineering:

A Path to Cheaper, Quicker, Better For Every Organization

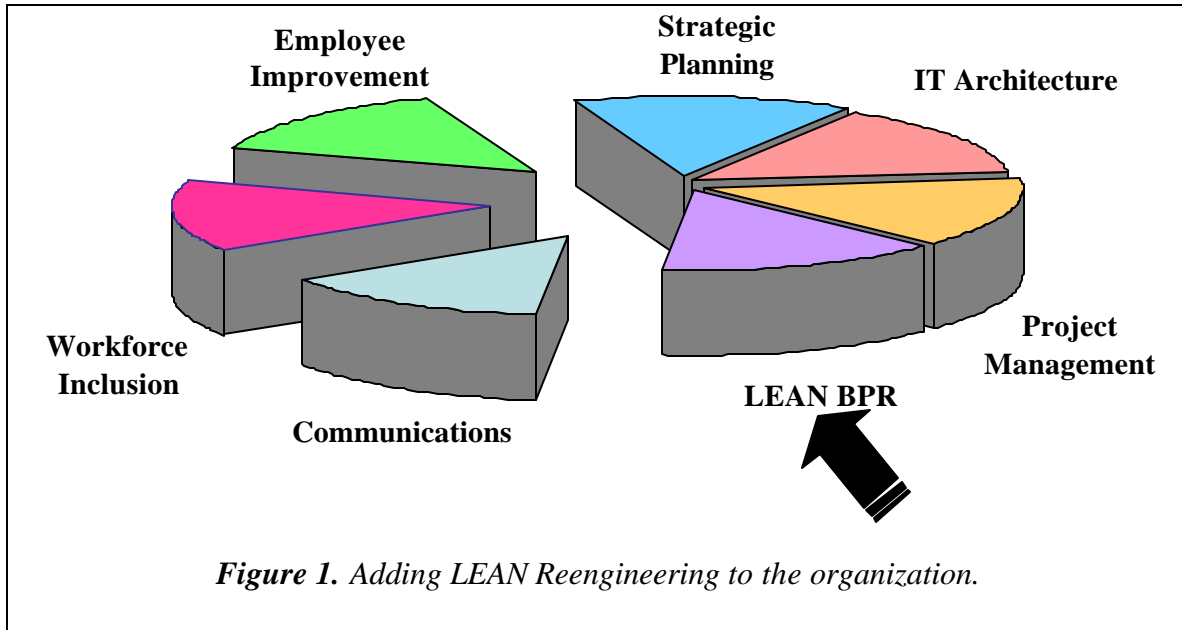
**By: James M. Kerr
Best Practices Enterprise Group
Cromwell, CT 06416**

Your Business, Inc. has learned how to respond quickly to changes in the marketplace by streamlining operations and business processes through continuous LEAN reengineering activities. With a focus on people, process and automated systems, a type of workflow fluidity has been founded that has been unheard of until now. It has refined process redesign so well, in fact, that it can change workflow on a dime and introduce new products faster than ever before.

Michael Hammer, the godfather of business reengineering, suggested in his groundbreaking treatise, “*Reengineering Work: Don’t Automate, Obliterate*”,¹ that businesses should raze existing work processes and replace them with new ones that make better use of modern technology. I’m not so sure.

While business reengineering is certainly an important business fundamental, it is better practiced thoughtfully than with total annihilation in mind. After all, businesses are comprised of people, like you and me. What would I do if someone came along and decided to blow my business unit to kingdom come? Well, depending on my mood, I just might decide to hunker down and return fire!

Obviously, this is not the reaction that most management teams are after when they begin a business reengineering effort. In this white paper, we’ll look at some ways that LEAN Reengineering programs can be executed that will engage, and inspire staff to do their best work – and not alienate or put personnel on the defensive (see Figure 1).



Why Bother With LEAN Reengineering?

LEAN reengineering is the process of redefining the way work is performed within a business. It explores issues surrounding what work is performed, how it is accomplished, when it's done and by whom. It's not unusual for a firm to totally reconstruct its workflow and reorganize its workers during a LEAN effort (see *Nestle` Sidebar* for more).

LEAN Business Process Reengineering (LEAN BPR), as it is sometimes called, can be adapted to become an ongoing process that is done continually within organizations as work is performed. This distinction is vital because LEAN Reengineering is the only way for business leaders to ready their organizations for the continual transformation required by the competitive environment of the *Best Practices Era* that is upon us in the early 21st Century.

Best Practices Business in Action:
One Nestle': Transformation through LEAN BPR²

In 2002, Nestle' USA needed to consolidate its \$6.6 billion operation, as competition brought about through industry mergers and the emergence of retailer private labels began to eat into the food giant's profits. It looked to LEAN BPR to provide part of the solution.

One Nestle' was developed in response to the industry challenges. The program introduced a new vision and strategy for the company. It calls for integrating all of the U.S. brands under one corporate umbrella and introducing common processes, operating standards and information systems across the concern.

The multi-year transformation effort is off to a strong start. Supply chain efficiency alone (i.e., order tracking, purchasing, inventory control etc.) has accounted for nearly \$325 million in savings since the inception of the *One Nestle'* initiative.

By redesigning workflows and shifting the way work is done, Nestle' USA has been able to integrate its once disparate operations into a cohesive and more efficient whole. The Company is clearly a *Best Practices Era* enterprise – proactively doing what it takes to stay ahead of the competition.

With that said, there are several other reasons for organizations to seriously consider embracing LEAN Reengineering. Firstly, the producer / consumer dynamic has changed. Customers have a wider array of choices than ever before. They don't have to accept shoddy quality or service. Alternatives are widely available in the global marketplace of the *Best Practices Enterprise*^{TM 3}.

Secondly, the game has shifted from mass production to mass customization.

Manufacturers are recognizing that the only way to keep customers is to deliver to their specifications. Most have embraced quality programs, like ISO⁴, in order to grow and maintain their competitive positions. With the continued advancement of technology,

© Best Practices Enterprise Group . No part of this document can be copied or used in any way without express written consent from the author.

even marketing and advertising has become a one-to-one proposition (see *Beemer Sidebar* for an example).

The push towards both mass customization and unsurpassed service delivery is leading businesses to become very focused on forging new relationships with vendors who can be entrusted with managing outsourced parts of the business operations – affording firms the ability to scale to size and capacity to meet fluctuating demand.

It is important for companies to consider reengineering business processes now, because most business processes were contrived before the advent of the more sophisticated automated support tools that are currently available. While many firms tweak work activities by piling automation on to them, most should redefine their processes before automating them.

Indeed, *LEAN Reengineering* is an essential ingredient in positioning *Best Practices Era* organizations for success in the exciting times that lie ahead. Workflow organization and design needs to be continual and ever evolving in order to take advantage of the latest technological advances and to seize market opportunities as they arise.

Global integration, customized products / service offerings and ultra responsiveness are the goals shared by every *Best Practices Era* business. By implementing *LEAN Reengineering*, today, firms improve their chances of achieving these goals tomorrow.

***Best Practices Business in Action:
A Beemer Just for You⁵***

With a focus on one-to-one marketing, BMW is pursuing a personalized direct marketing strategy in the United States for its Z4 roadster. Mailings feature the cars in a recipient's favorite color and the people and setting of the photos reflect the prospective customer's particular demographics, as well.

By taking advantage of the latest printing technologies (HP Indigo Press 3000), Redi-Mail of Fairfield, New Jersey, BMW's direct marketing vendor, can customize the 32-page color brochure for each addressee by age, sex, income and favorite color. The marketing piece is further customized by the inclusion of a personalized note that suggests (from previously gathered information about the recipient) why the person might consider the purchase of the Z4.

While the payback on the investment in this one-to-one marketing effort is still unclear, BMW is expecting to double typical recipient response to the mailing. Nonetheless, this technique of speaking to potential customers as individuals and creating personalized direct marketing to targeted individuals is a *Best Practices Era* practice that is sure to catch on as consumers sophistication continues to grow and their demands continue to become more discerning.

The Keys to LEAN Reengineering

Change is always difficult to implement and the scale of change that *LEAN Reengineering* effort imposes on the work environment can be quite dramatic to everyone involved. When LEAN Reengineering is fully institutionalized within a firm, it will have become an important element of the company's culture and will inform its work setting for evermore. After all, success is about creating an environment of continual rebirth

within the enterprise (see *Cummins Sidebar* for an example of a firm that has embraced the concept).

***Best Practices Business in Action:
LEAN BPR at Cummins⁶***

Cummins is a designer and manufacturer of high performance diesel engines and electrical power generation systems. Headquartered in Columbus, Indiana, the firm has operations all over the world.

A few years ago, Cummins embraced the notion of continuous process improvement. It chose to implement *LEAN Six Sigma Statistical Analysis* as the underpinning of its *BPR* methodology. While *Six Sigma* has a heavy statistical analysis bent, seeking to measure process inputs, outputs and documenting variances as a means for determining actions for change, it does provide the measurement tools needed to assist firms in discovering process improvement opportunities.

Clearly committed to changing the culture and establishing a new way of doing business, Cummins has trained thousands of its staff members in the *Six Sigma* methodology. Over 1000 *LEAN Six Sigma* projects have been completed worldwide. The Company has achieved almost \$400 million in corporate savings through the efforts – a clear indication that the process is working.

The Cummins example is proof positive that *LEAN BPR* is a *Best Practices Era* stalwart that cannot be ignored.

For this reason, a rigorous *LEAN BPR* method must be adopted when first doing the work needed to jumpstart *LEAN Reengineering*. The methodology chosen must be straightforward and able to deliver quick and lasting results. The key characteristics of a worthy jumpstart approach include provisions for:

- ? Building the “*right*” team;
- ? Establishing the “*right*” setting;

- ? Conducting thorough *Business Modeling*;
- ? Performing thorough *Process Analysis*;
- ? Redefining the *Value Stream Chain*, and;
- ? Creating necessary *Transition Plans*.

Let's examine these elements in more detail.

Building the “Right” Team

The project team is possibly the single most important determinant of success in a LEAN Reengineering effort. There are several roles that must be played and played well, in order for the project to have any hope of having a lasting effect on the business.

The team must be led by an experienced LEAN BPR facilitator. The work can not be done by simply reading about how to do it in a book. Experience does count here. You need someone who's done their time in the trenches and can anticipate the trials and tribulations that are typical in a LEAN BPR engagement.

While a strong facilitator is a key to success, surrounding the leader with some strong players is also extremely important. These players can be classified into three broad categories that we will call *Staffers*, *SMEs* and *Business Analysts*.

- ? *Staffers* are people from the business area that can seek and retrieve important information about the business that is needed by the team to do its job. Because they're from the business area, they know where to find items like sample work documents, policy and procedure manuals and job descriptions.
- ? *SMEs* (*short for Subject Matter Experts*) are usually business professionals, but, can also be consultants. These individuals put together all of the work products and recommendations that will be delivered. Not to be confused as clerical

assistants, the *SMEs* grind out content. They must be skilled at writing thorough business reports and preparing convincing management presentations.

? *Analysts* study organizations. Specifically, they study the way work is done by businesses and try to identify better ways to do it. Usually outside Management Consultants play this role. But, they can come from the business area, too.

Objectivity and business experience is the key to their effectiveness.

Keep in mind that the LEAN BPR team doesn't have to be large. In fact, a four or five person team tends to be most effective. But, the best LEAN BPR teams have a sprinkling of all of this kind of talent. When a team is lucky, some of its members are strong enough to play more than one role.

Establishing the “Right” Setting

Business reengineering work is a combination of fact gathering, synthesis and analysis.

Fact gathering is best done in a workshop setting where information can be freely expressed and supplemental opinions can be sought from the business experts in attendance. Synthesis and analysis, on the other hand, is best done by the LEAN BPR team in private – where issues can be discussed and conclusions drawn without interference by concerned parties not specifically on the team.

With that said, it is recommended that a LEAN BPR project room be established that can be used exclusively by the LEAN BPR team. It should be large enough to conduct workshops with business people, have plenty of wall space for posting information gathered in workshops and provide personal work space for each member of the team.

Because this “war room” will be a team member’s home away from home, basic office equipment (e.g., telephones, personal computers, printers and fax machines) should be available for use by each member. Access to copying machines, office supplies and administrative support is also important, especially during “crunch time” when team members are busy producing the final deliverables.

Business Modeling

Business modeling is a technique for defining the boundary and scope of a business reengineering effort. Its aim is to determine the workflow within each business area within the enterprise and to discover both the internal and external correspondents that each business area interacts with in the course of executing its basic mission.

A business model diagram, like the one in Figure 2, is built for every functional area and it reflects this information. These models are built by the LEAN BPR team while in workshop with subject matter experts from the business community.

As you can see, the business function being reengineered, in our example, sits in the middle of the diagram and the internal and external business correspondents are represented along the periphery. The workflow is defined as the flow of information between the business area and its correspondents.

Additional information about the business area like, throughput volumes, production statistics, process triggers and average turnaround times, for example, can also be captured as the diagram is being developed. This data will provide valuable insight into the inner workings of the business areas comprising the firm and will help the team

determine how to best begin its LEAN Reengineering effort of introducing continual workflow redesign within the enterprise.

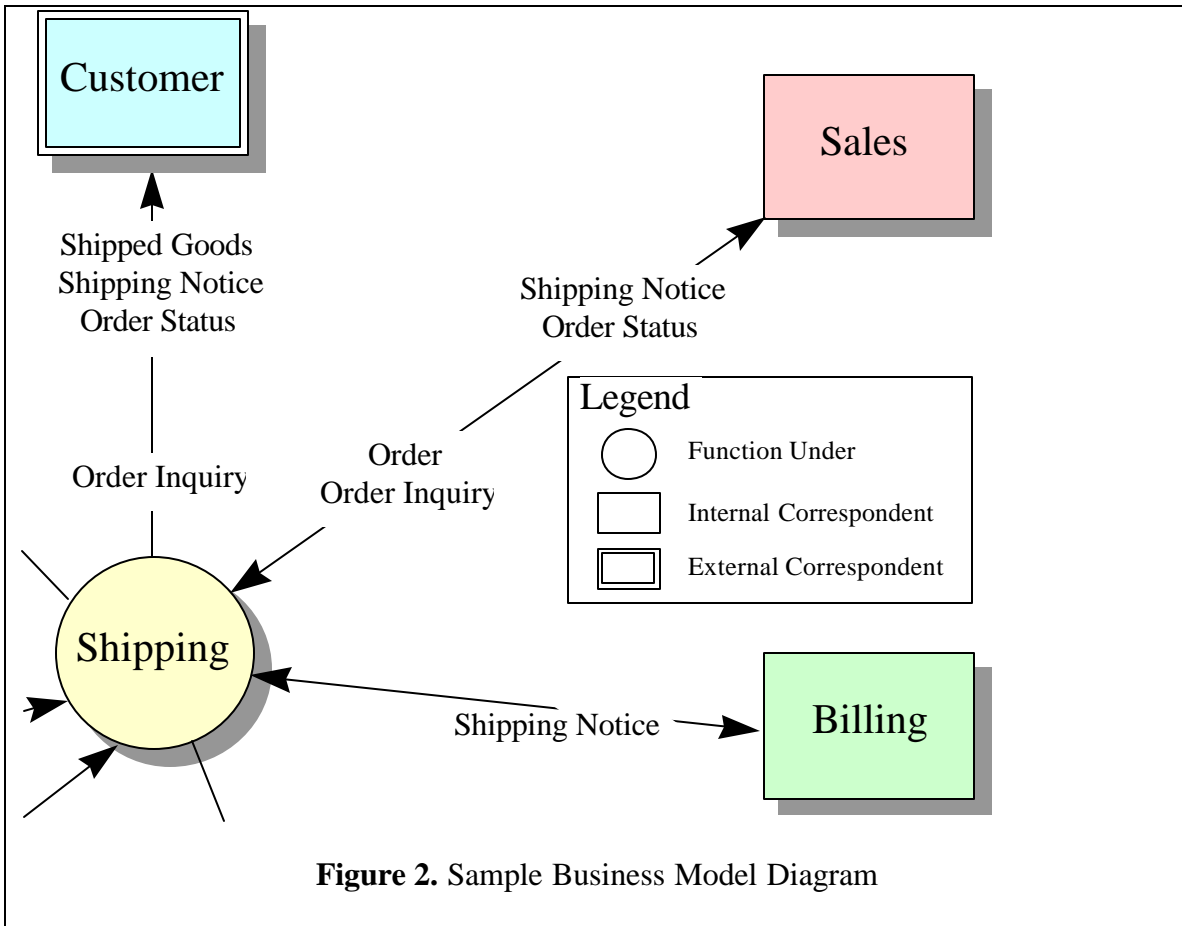


Figure 2. Sample Business Model Diagram

Process Analysis

The heart of any LEAN BPR methodology is its approach for analyzing the business processes that underpin the business. The final LEAN BPR change recommendations are only as good as the project team’s ability to discern the facts about the way work is performed and what can be done to improve it. Therefore, the process analysis approach has to be solid for the subsequent LEAN Reengineering effort to be worth anything at all.

Process analysis begins by reviewing the business models that were created earlier in the launch effort. The project team, in essence, tries to poke holes in the model and identify alternative ways to get the job done. It reviews the facts and statistics gathered and distinguishes weak points and improvement areas within each of the business models.

Frustration can set in without an organized way to go about this kind of analysis. Much pain and heartache can be avoided by applying a predetermined and integrated set of questions concerning *who, what, where, when, why* and *how*. It is through appropriate examination that breakthrough improvement opportunities can be identified for the business (see ***WellPoint Sidebar*** for an example of how solid analysis can payoff).

A project team can quickly draw conclusions about the status of a particular business process by exploring questions like:

- | | | |
|----------------------|---------------------------|----------------------------|
| ✍ Who does it today? | ✍ Who else could do it? | ✍ Who should do it? |
| ✍ When is it done? | ✍ When could it be done? | ✍ When should it be done? |
| ✍ Where is it done? | ✍ Where could it be done? | ✍ Where should it be done? |

The process analysis approach used can and should include 70 to 80 such questions. A dialogue focused on these questions can lead to additional ones focused on work material, personnel and measurement practices.

With the answers to these kinds of questions in tow, the LEAN BPR team can begin to consider alternative ways to design the workflow and organization of the business.

Experience has shown that a *value chain* depiction is the best way for a team to present its initial recommendations for change.

*Best Practices Business in Action:
Attacking Claims Leakage at WellPoint*

WellPoint was clearly overpaying its health claims and needed help. It began a major LEAN BPR initiative aimed at looking for ways to streamline the claims handling process and achieve the cost savings that the management team knew existed.

The overpayment of health claims (known as “leakage”) is a major challenge for most insurers, routinely accounting for millions of dollars in inappropriate claims. Factors, like these highlight the problem:

- ? Duplicate submissions;
- ? Payment of uncovered charges,
- ? Lack of Benefits Coordination, and;
- ? Inaccuracy in contract usage

Comprising nearly 85% of the cost structure, inappropriate claims have a direct impact on gross margin and profitability.

The LEAN effort conducted within the California division of WellPoint was able to determine its major causes of leakage, to identify cost-effective solutions to overcome the problems and to develop a multi-year plan of attack to remedy the situation.

Through a combination of automation and process improvements the firm has been able to reduce claim leakage by \$65 million. The WellPoint experience exemplifies how a well-directed BPR initiative can pay dividends. It serves as living proof to other *Best Practices Era* businesses seeking ways to cost-effectively compete in a highly competitive marketplace, where margins are tight and costs are a determining factor for success.

The Value Stream Chain

A *value stream chain* is a graphical representation of all of the work that must be done by a business or work area in order to provide its goods/services (i.e., “value”) to its customers. It is a valuable means of presenting a normalized view of the business. It is free from redundancies and non-value added work activities. An observer can clearly see how work activities can be strung together to forge a new, high-quality process design.

A *value stream chain* should be built for each business area. These models are valuable for presenting new and different ways of thinking about an enterprise. Because *value stream chains* are independent of existing organizational structures, staff and work locations, they are less intimidating to the management and staff that have a vested interest in the status quo. These players are less likely to resist any recommendations for dramatic change in their area of the business, if it comes in an objective, non-threatening way (see ***Bangkok Bank Sidebar*** for an example of how LEAN BPR work can redefine the way a business is organized).

Value stream chains are comprised of *Conceptual Operations Groupings* or *COGs*. COGs are generic bundles of work, which have been stripped free from any association to the current work environment. Like the cogs in a machine, these COGs make the *value stream chain* work. In fact, we can think of a *value stream chain* as really just a network of COGs (see Figure 3).

*Best Practices Business in Action:
Rebuilding Bangkok Bank through BPR⁸*

Bangkok Bank is the largest bank in Thailand and one of the largest in Southeast Asia. With foreign competitors like Citibank and Standard Chartered eating up the local competition, the Bank has to stay alert and focused.

In 2001, the concern embarked upon an ambitious LEAN-based business redesign program. Its focus was to realign Bangkok Bank's entire branch structure – reorganizing its 500 branches and introducing a shared services model to reduce costs and enhance its purchasing power.

In just three years, the Bank was able to:

- ? Restructure around customer segments, providing ways to deliver better service and enhance customer loyalty;
- ? Place focus on sales and services (and away from the simple transaction processing mentality that was in place prior), improving revenue and profitability, and;
- ? Introduce performance scoring as a means of transforming the culture towards results-focused measurement.

By so doing, Bangkok Bank's stock price rose over 23 percent, loan growth exceeded that of its competition and the concern returned to profitability for the first time since the Asia financial crisis of the late 1990s – a certain indication that LEAN BPR work is worth the investment for today's *Best Practices Era* organization.

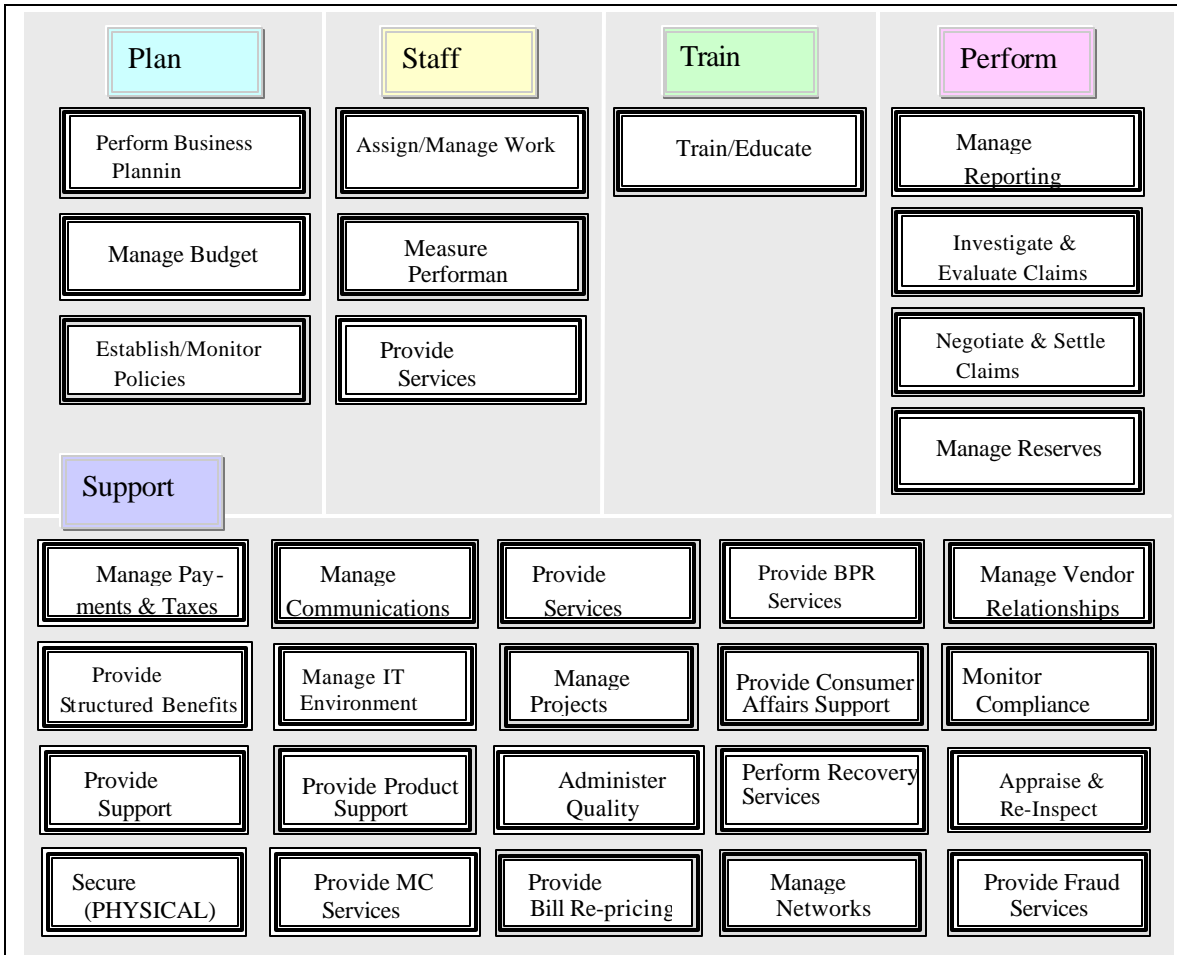


Figure 3. Sample Value Stream Chain Diagram

As you can see from the figure, a *value stream chain* is organized into five components, or categories. All the work performed by any organization or work area can be grouped into these five basic categories:

- ? **Plan** - which contains a collection of COGs that support the planning activities within a business area;
- ? **Staff** - which contains a collection of COGs that support staffing activities within a business area;

- ? ***Train*** - which contains a collection of COGs that support training activities within a business area;
- ? ***Perform*** - which contains a collection of COGs that support the core work activities within a business area;
- ? ***Support*** - which contains a collection of COGs that are performed in the support of all the other COGs in the *value chain*?

The figure presents a sample from the claims department of a major insurance company. Notice that the COGs have no reference to the typical functional areas or business units that one would find in a Claims Department, and that no chain-of-command can be inferred from the value chain's depiction of claims processing.

What's not readily perceptible from the figure is that this *value stream chain* represents a major departure from the way the company originally viewed its claim handling function. The LEAN BPR effort that was performed there made the Department's staff "think out of the box" and truly redefines itself – which is what LEAN Reengineering is all about.

Once the *value chains* are defined for a business, all of the COGs are thoroughly documented. The format includes a brief description of the COG, a high-level event model which depicts the workflow within the COG, and separate discussions of the related *people*, *process* and *technology* issues that underpin the COG.

Once fully documented, the *value stream chain* represents the LEAN BPR team's recommended work environment. All that is left to do is develop the plans for the

projects that are needed to actualize this target work setting and institute a process for continual change.

Transition Planning

It's not unusual for hundreds of issues to be uncovered and documented through the *value stream chain* development effort. These issues are then synthesized and translated into new project initiatives for the company. It's through the execution of the identified projects that *LEAN Reengineering* really takes hold within an organization.

It's imperative that the LEAN BPR methodology adopted have a strong transition planning component within it. This way, the LEAN BPR team will be sure to convert the open issues it has identified into actionable items through the creation of detailed project plans.

The project planning template should be employed in the development of each individual project plan. The template provides a standard way of developing the project plans and renders a common method for defining the intended outcome of each project.

Once the project plans are crafted, they should be prioritized and grouped into implementation plateaus to form the finalized *LEAN Reengineering Implementation Plan*. The resultant *LEAN Reengineering Implementation Plan* should then be incorporated into the organization's *Strategic Plan*.

In this way, the enterprise is able to see where its LEAN Reengineering initiatives "fit" within the larger context of all of the organization's planned projects. This ensures that the senior management team is positioned to make informed decisions about where the organization should invest its time and money.

How to Make It Stick

Once armed with a dependable LEAN Reengineering approach, an enterprise must set about incorporating the use of the method into the very core of its strategic thinking. For it is through business reengineering that an organization is transformed. LEAN Reengineering provides the means for a business to reinvent itself – something that businesses will need to do in order to compete in the *Best Practices Enterprise*TM world. Let's probe the rudiments of LEAN Reengineering execution.

Embrace the Philosophy

First, we need to raise everyone's awareness of what LEAN Reengineering is all about. This can be done in a myriad of ways using some combination of training and the deliberate use of the communication devices described earlier in the book.

Regardless of the methods employed, the focus of the message should be that LEAN Reengineering isn't a choice, but a matter of survival. Stress the fact that, companies that are actively changing and improving will always fare better than those that are complacent and locked into existing work paradigms.

Put People Behind It

Next, management teams must put money where their mouths are. A LEAN BPR-specific function should be established and staffed by a team that knows how to provide LEAN Reengineering services. Most firms go out to the marketplace and recruit consultants to join the company to drive the creation and management of the function. However, the new group can be formed around experienced employees, as well.

Nonetheless, by putting people behind it, we send a clear message that the company is serious about LEAN Reengineering work and that it's willing to do whatever it takes to

gain the skills to do it right. Secondly, by making LEAN Reengineering work someone's job the company is ensuring that the LEAN Reengineering process will get the attention it needs to be successfully executed. It really can't be done to the extent described here on a part-time basis.

Make It a Standard Practice

Once the organization is positioned to deliver the necessary LEAN Reengineering services, it's time to require that redesign work be done. An effective way to jumpstart this notion is to begin the work by adopting a business principle that requires every new automation effort to be preceded by a LEAN BPR project.

New automation projects always include some form of fact gathering about the business requirements for the new system. A LEAN BPR effort done at this point in a project could yield far-reaching results for the business and will certainly shed additional light on the automation needs of the enterprise.

Further, it makes sense to do a LEAN BPR review when:

- ? Introducing new products/services to the marketplace;
- ? considering strategic options like outsourcing, commercializing internal departments and mergers/acquisitions, and;
- ? reorganizing departments within the enterprise.

Showcase Results

Lastly, we've got to promote the value of LEAN BPR work across the enterprise. This can easily be done through the proper leveraging of the communication vehicles

described earlier. How successes are promoted is not as important as ensuring that they are promoted. Just do it!

Remember that people's reactions to, and acceptance of, wholesale change will follow on a typical *Bell Curve*. Some staff members will embrace it immediately; some will resist it as long as possible, most, however, will wait and see if the company is truly committed to the change. By showcasing results as they are gained, a firm helps the staff caught in the middle of the curve to jump on board sooner than they might otherwise. With some luck, businesses may even win over some of the detractors, too.

In Closing

LEAN Reengineering work is never done. Instead, an enterprise that is committed to continuous improvement is truly a work in progress. With a LEAN BPR program in place, these organizations are constantly evolving and changing in new and exciting ways. A *LEAN BPR culture* emerges and quality and improvement in all that is done becomes an important company value.

So, to close, let's not annihilate. There's a better, more thoughtful way to go about business reengineering that still provides the gains that are needed and positions tomorrow's *Best Practices Enterprises*[™] to seize the moment as opportunities arise.

List of Figures and Endnotes:

Figure 1. Adding Business Redesign to the organization

Figure 2. Sample Business Model Diagram

Figure 3. Sample Value Stream Chain Diagram

¹ Hammer, Michael, "Reengineering Work: Don't Automate, Obliterate," *Harvard Business Review*, July-August 1990, pp. 104 - 112.

² Based on "The Right Ingredients", www.dc.com/expertise/services/ent_apps/index.asp, October 10, 2003.

³ Best Practices Enterprise™, a term coined and trademarked by James M. Kerr, refers to organizations that are limber, ever prepared to do what it takes to respond to a rapidly changing and often tumultuous marketplace. They are quick, nimble, interconnected, diverse, service-focused, and virtually independent of physical location.

⁴ ISO is an acronym for the International Organization for Standards. It is a global network that identifies what international standards are required by business, government and society. ISO then works to develop the standards in partnership with the sectors that will put them to use and adopt them—producing the standards for implementation worldwide.

⁵ Based on "HP Indigo Press 3000 Provides BMW with Personalized Direct Marketing Campaigns", www.h30046.www3.hp.com/casestudy, October 8, 2003.

⁶ Based on "Using Six Sigma Statistical Thinking to Improve Business Processes", www.tt100.biz, 2004.

⁷ Based on "Case Study: WellPoint", www.accenture.com, 2003.

⁸ Based on "Bangkok Bank", *Booz Allen Hamilton Magazine*, Spring 2004, pp.33-34.