

Know What Counts. Measure What Matters. Deliver Results.
Lean Six Sigma and the Quest for Continuous Improvement.





What if you could make innovation an integral part of your process? No one argues against continuous improvement. The concept of improving results and performance on a continual basis is universally hailed as a great idea. Doing it is another matter.

First off, in order to improve continuously, you have to improve initially. Sometimes it's easy to see the flaws. Most of the time, it's not. That's why business results are often a mixed bag: two steps forward, one step back, sometimes better, sometimes worse. Simply stated, the goal is better, then better still.

A Hypothetical: Business Results Are the Sum of Your Processes

Building a Powerful Engine for Continuous Improvement

Lean Six Sigma is a rigorous, data-driven, results-oriented approach to process improvement. It combines two industry-recognized management methodologies evolved by companies like GE, Motorola, Bank of America, Xerox and Caterpillar, to cite a few examples.

By integrating the tools and processes of Lean and Six Sigma, a powerful engine is created for improving quality, efficiency and speed in every aspect of your business.

Lean + Six Sigma

Speed + Low Cost

Lean Speed enables Six Sigma Quality (faster cycles of experimentation/learning)

Culture + Quality

Six Sigma Quality enables Lean Speed (fewer defects means less time spent on rework)

Typically, organizations use Lean Six Sigma to make improvements inside their operations for everything from managing their supply chain processes and billing processes to new product design and customer relationships. For some, it becomes a new offering – a process improvement service they offer to their clients.

You could argue that innovation, invention and big ideas have more impact on improvement than process does. But a wider view makes it clear that moving a big idea from the brain that created it into your global operations requires not just one well-designed process, but many well-designed processes, to deliver a profitable outcome.

R&D has a process. Supply Chain has a process. Marketing and Sales have a process. Finance has a process. And inside of those processes are many sub-processes. It's often down in the layers of the sub-processes where you discover faults and deficiencies that hinder optimal situations.

In theory, improve the processes, improve the results.

The First Step: Optimize the Process

Designing, implementing and operating an optimized process that can scale to global dimensions can be incredibly difficult, especially when you factor in that it's not a one-time event. It has to evolve over time as new requirements emerge and new technology becomes available.

It requires a disciplined approach at the outset, and a dedicated commitment to monitoring and measuring. And you need proven tools and methodologies to establish the baseline, improve what's there in the short term, monitor and control its operation, and create a path to future improvements over the long term.

For us, that disciplined approach is Lean Six Sigma (LSS).



Lending Discipline to Online Services

The Lean Six Sigma methodology may be most valuable in situations where it can drive efficiencies, increase the effectiveness of personnel and, ultimately, lead to an enhanced patron experience.

Take the [Brooklyn Public Library](#), for example. Its policy of allowing patrons to print virtually any number of Web pages or other electronic documents free of charge was costing the library about \$2 million per year on supplies alone. Worse, it was tying up librarians' time. This meant wasted labor costs and poorer service to patrons.

Library administrators realized that a print-for-pay system would help curb the unnecessary spending. But the system also needed to provide a better way to manage access to the 850 public computers and the large fleet of printers that were diverting librarians' time from their traditional duties. And, the library's patrons deserved improved access to services and faster, easier access to information.

Using a disciplined approach of Lean Six Sigma, the Xerox Global Services team led library administrators through a totally

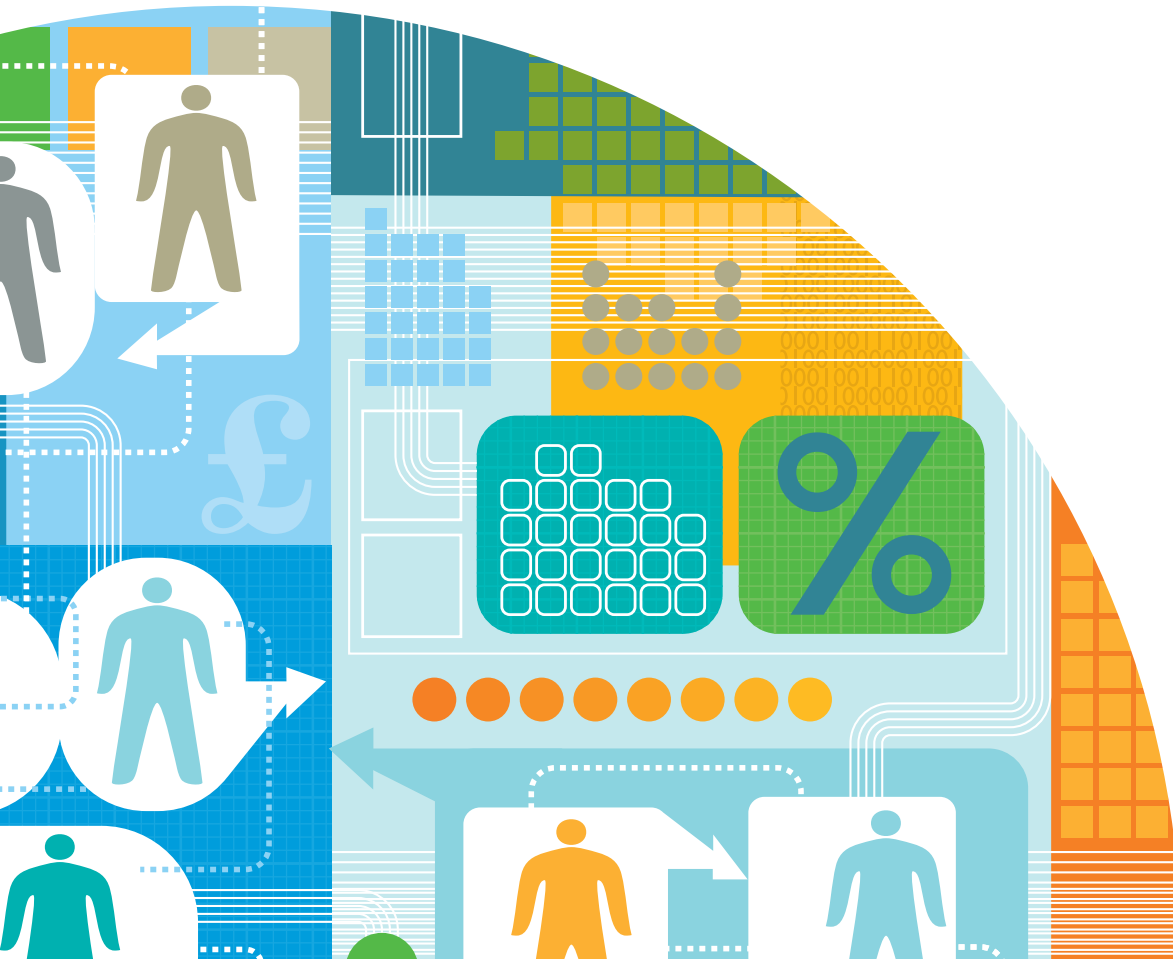
fact-based analysis, seeking out core processes, making them controllable, and then automating them.

The Solution: A comprehensive Patron Access Management system that effectively merged people, processes and technology. The most visible symbol of the system is a simple, plastic Access Brooklyn Card (ABC) that provides patrons with better service and the library staff with more time.

With their ABC card, patrons can reserve a computer, add value to their library account, pay for prints and copies, check out books and even pay library fines. Meanwhile, librarians and other staff have time to do the jobs they were trained to do.

"In this case, the solution involves a complex system... But our experience in this sector and with Lean Six Sigma helped us know where – and how – to look."

– Charles Tippet
Xerox Global Services, Business Development Manager



Value Becomes the Fabric

Bringing More Ideas to Market Faster and for Less

As knowledge and innovation become more-critical drivers of business success, the value of intellectual property has never been higher. More than ever, companies now depend on bringing new innovations to market quickly and efficiently.

Xerox holds one of the world's largest portfolios of intellectual property. Yet that number of patents was declining relative to competition. Part of the cause was that Xerox's filing time for patents had grown above the industry average.

To address this competitive disadvantage, an internal Lean Six Sigma team applied the Define, Measure, Analyze, Improve, Control process (DMAIC) and uncovered opportunities to remove non-value-add steps.

For instance, the team discovered and eliminated two steps that caused major delays: the decision either to prepare the files internally or send to outside counsel, and the requirement that two different committees judge applications for technical and business relevance. Combining the reviews cut 64 days of cycle time. This saved \$400,000 in time and allowed staff to devote more time to other mission-critical projects.

The Solution: All told, the streamlined process drastically cut patent filing time from 493 to 167 days, well within the industry benchmark of six months. The patent pool and backlog of cases were abolished. In-house counsel now files most cases. And if a case hasn't been selected by in-house counsel after one week, it's sent outside with a strict 90-day deadline.

The team also realized that Xerox had been abandoning 15% of cases filed in the patent office. Since each patent costs \$10,000 to prepare, file and prosecute, significant savings are generated by not abandoning patents at this stage.



Driving Your Business Forward

One of the basic assumptions of Lean Six Sigma is that all the activities of your organization should add business value. Every step in a process is defined, measured and analyzed for the value it produces. You listen to the voice of the process. You listen to the voice of the customer. Listen for the sounds of frustration. It makes it easier to identify opportunities for sustainable improvements.

Achieving results is one thing. Sustaining them and improving on them is far more valuable. Your optimized process must be monitored on a regular basis. Lean Six Sigma tools make that much easier with key metrics and data points served up in a dashboard view. At a glance, you can see the status and, when necessary, apply controls to maintain optimal performance. It's like being in the driver's seat of a high-performance business process.

Sustainable Results

Lean Six Sigma is a powerful tool for dealing with inevitable change. With its emphasis on qualitative and quantitative data gathering, and fact-based decision making, your organization grows smarter every day.

As new technologies and new capabilities emerge, you're better prepared to assimilate them into your business and get the maximum benefit out of innovation. In other words, properly applied over time, LSS is a source of sustainable competitive advantage.

Canadian Telecom Company Makes Great Call on Statement Redesign

You can apply Lean Six Sigma to almost any aspect of your business. Take **Aliant**, a leading North American telecommunications and information service provider. A few years ago, the company realized its bills were causing problems that hurt the customer experience, cash flow, operational costs and the brand.

Customers were confused by the complexity of the billing information. As a result, costly calls to the Customer Care Center spiked after the bills went out in the mail. It was also difficult for Customer Care agents to resolve problems quickly, because the format of the electronic bills on their computer screens was different from the printed bills customers received.

All these issues contributed to an excessive number of late payments that slowed down the company's revenue stream.

"We received feedback from our customers that our bill was confusing, not customer friendly. We realized it was time to make a big change."

– Claudine Langan
Aliant, Director of Consumer Marketing

The Solution: A team from Aliant worked closely with Xerox Global Services to improve the customer bill and re-engineer the company's approach to print production.

Our communication engineering experts led the bill redesign effort, using disciplined processes and methodologies to analyze the problems with the existing format and carefully develop, test and refine a long list of high-impact improvements.

The changes were designed specifically to improve the customer experience, facilitate marketing, enhance the brand and create a single, consistent bill design for print, online and Customer Care Center applications.

As a result, Aliant now mails a statement that is clear and easy to comprehend, reduces calls to the CSR Help Desk by 30%, doubles as a 1:1 marketing tool and is produced in significantly less time and at much lower cost.

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