



Thank you for meeting with members of the Coalition for 21st Century Patent Reform on December 10. We appreciated the opportunity to be able to discuss our views for improving the PTO operations and on the qualifications needed in the next PTO Director. We were pleased to be able to address many of the questions which you presented to us. One follow-up involved providing some more information relative to the utilization of six sigma in the PTO. As I mentioned in our meeting, I had offered to provide to the PTO the services of a Six Sigma Master Black Belt who is a patent attorney and doing projects within the Legal Affairs Department of 3M. However, that offer was not pursued by the PTO.

The advantage of using the six sigma methodology in the PTO setting is that it is well accepted, data-driven, and work wells on improving processes that are continuously repeated. Some of our discussion focused on outcomes or elements of the processes that you or others would like to see fixed in the PTO. The benefit of the six sigma approach is that it sorts out what are the critical variables in the process so you know what to work on in order to have the largest impact. Often when the work is done, we have found that elements of the process which we thought were controlling were indeed not the controlling or limiting factors, it was others. We have had good luck in finding the root causes of problems and developing solutions which can be implemented and then tested using data to determine if they are having the desired impact. Sometimes the testing occurs prior to a full implementation in a pilot. Further information on six sigma is below.

as well as a few examples of projects that have been run in IP departments in major companies. Some of the companies that I'm aware of that have implemented Six Sigma in their IP departments are also listed.

Six sigma is an approach to process improvement that seeks to redesign or improve processes by reducing defects and unwanted variations in the process. Six sigma has been applied successfully by legal and intellectual property departments on processes that are core to the operation. In this context, "defects" can be considered to be unmet customer expectations, as viewed by internal and external customers. Six sigma is often used to obtain improvements in cost, speed, and quality of processes. Six sigma methodology overcomes the tempting misconception that improving one of those three factors comes at the expense of the others and is often used to improve all three of these factors in a process.

The steps in a six sigma project are typically referred to as DMAIC:

- Define the process and the defects.
- Measure the defects in the current process.
- Analyze the process with statistical tools to determine the key factors that determine the successful performance of the process.
- Improve those key factors to achieve the desired outcome.



Control the process going forward to maintain the improvements.

Six Sigma methodology uses statistics and other analytical tools to determine the cause of process defects and how to improve the process. It focuses on determining the root causes of the key defects, and then redesigning the process to eliminate the causes of the defects or to make the process less sensitive to those causes. Organizations typically deploy a six sigma program by providing extensive training for a number of employees to manage process improvement projects (six sigma "Black Belts").

Often, the project team members receive a scaled down version of this training to allow them to effectively participate in the project (six sigma "Green Belts").

Some companies that have used Six Sigma in Legal and IP operations:

- Motorola
- GE
- DuPont
- 3M
- Eli Lilly
- Cisco

Some representative projects:

- Patent application cycle time - reduced 50%
- Selection of invention disclosures for patent filing.
- Reduce patent filing and prosecution costs while improving patent quality.
- More efficient and effective decisions on patent portfolio maintenance and country selection.
- Litigation document collection - 57% cost reduction.
- Selection of Outside Counsel.
- Records management.

Please let us know if you have questions or would like further information.