



Dear Members,

Season's Greetings to all members, patrons and volunteers of the chapter. Thank you for your continuous support as the chapter completes yet another year of great accomplishments and achievements. As we gear up for a new year, the chapter continues its focus on spreading project management awareness across corporate and project management communities in the region. The chapter was invited as one of the key speakers in the prestigious IBM Corporate event PM ShareNet2014. As project professionals see the growing demand in organizations for an agile approach to project management, the chapter is also helping the PM community embrace agile practices in project management through a series of knowledge sharing sessions ranging from basic to advanced agile topics. The chapter is also revamping its PMP training sessions and include a number of value added services in this arena.

As we are stepping into 2015 with new energy, we are looking for fresh ideas of passionate professionals as chapter volunteers. We encourage you to come forward and be an anchor in volunteer capacity to participate in various chapter's activities and events. This is the time to expand your network, attend chapter events, meet up and study for accreditation.

**Cheers,
Editor's Desk**

COVER STORY

ADVANTAGES OF IMPLEMENTING SMED CONCEPTS IN PROCESS IMPROVEMENT

- Innovation is now recognized as one of the key success factors for the improvement of productivity. Although newness, creativity and invention are behind the concept of innovation, this is structured around three main blocks: products, processes and organizations. If we closely observed the last two decades, we see a major changes in the management and organization of the production systems in industrial firms all around the world. While product innovation is intimately related to the development of new technologies and to new products to satisfy market needs, process innovation is related to new elements, equipment or manufacturing methods to improve the production of a product or to provide a better service.
- The development of new management techniques, taking into account limited production resources, is on high demand as product demand is shrinking and the competition is ever stiffer. Accordingly, the better the efficiency of the firm in managing its production resources the better the firm is to respond to the competitive challenges through improved operational performance. **Single-Minute Exchange of Die (SMED)** is one of the many [lean production](#) methods, developed by Shingo (1985), it was developed in order to reduce and simplify the setup time during change-over. SMED, which is also a Japanese process-based innovation, makes it possible to respond to fluctuations in demand and results in lead time reductions, while also eliminating wastefulness during change-over and diminishing lot sizes.
- The phrase "single minute" does not mean that all changeovers and startups should take one minute, but that they should take less than 10 minutes (in other words, "single-digit minute"). SMED's utility of is not just limited to manufacturing, but used in value streaming also.



Set up time refers to the total elapsed time realized for changing a piece of equipment over from making the last part of a production batch to make the first good part of the following production batch. **Run time** is the amount of time required to process or assemble each unit. Run time is adding value, transforming materials into what the customers require and are willing to purchase. Speeding run time of machines reduce lead times while shortening set up times and making them more consistent, will decrease manufacturing cost and its flexibility to meet customer demands will expand.

Consider the simple example of changing a tire, for many people, changing a single tire can easily take 15 minutes. But for a NASCAR pit crew, changing four tires takes less than 15 seconds. Many techniques used by NASCAR pit crews (performing as many steps as possible before the pit stop begins; using a coordinated team to perform multiple steps in parallel; creating a standardized and highly optimized process) are also used in SMED. In fact the journey from a 15 minute tire changeover to a 15 second tire changeover can be considered a SMED journey.

Key Steps to reducing Set up time:

- **Begin with management support and commitment:** Virtually every manufacturing company that performs changeovers can benefit from SMED. This does not mean, however, that SMED should be the first priority. The first priority should be ensuring that there is a clear understanding of where productive time is being lost, and decisions on improvement initiatives are made based on actual data. A system should be in place to collect and analyze manufacturing performance data.

- **Identify and select a process improvement team and separate internal activities from external:**

Walk through the entire set up process in detail and record the steps in written or video format, identify the internal set up steps as these require the machine to stop, identify the detailed external steps –steps that may be performed as the machine is running. The deliverable from this step should be an updated list of changeover elements, split into three parts: External Elements (Before Changeover), Internal Elements (During Changeover), and External Elements (After Changeover).

- **Convert Internal steps to External:**

In this step, the current changeover process is carefully examined, with the goal of converting as many internal elements to external as possible. For each internal element, the team should ask the following questions like how and what are the way to make the element external? This will result in a list of elements that are candidates for further action. This list should be prioritized so the most promising elements are acted on first. Fundamentally, this comes down to performing a cost/benefit analysis for each element. The deliverable from this step should be an updated list of changeover elements, with fewer internal elements, and additional external elements (performed before or after the changeover).

- **Improve internal Set up activities:**

Working with machine operators and set up people to better understand what their challenges are- removing these barriers so they focus more on fast change overs rather than performing non valued added tasks.

7 Stages of SMED

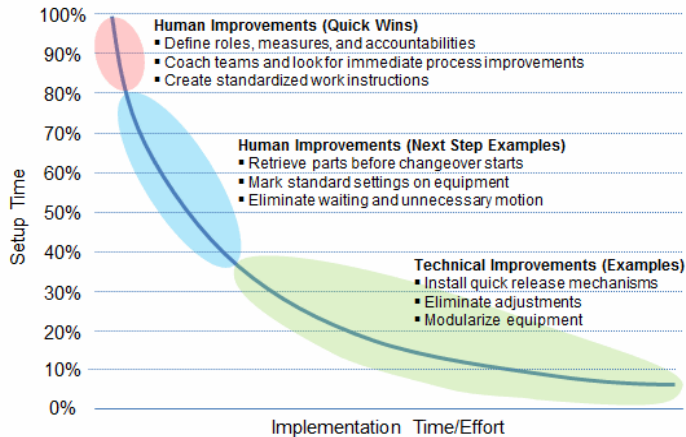


- **Improve external activities:**

Creating improved setup/ change over process, capture and analyzing accurate set up data, labeling , organizing , storing and maintaining all tooling , training to all operators/ set up people in the new process.

- **Mechanization or Automation:**

Employing technology to capture accurate set up process and replicate it with limited or no human involvement.



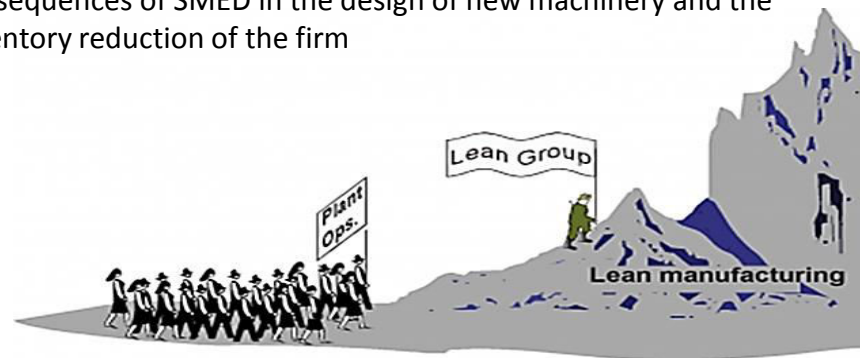
- **Ultimate goal : Abolish Set up:**

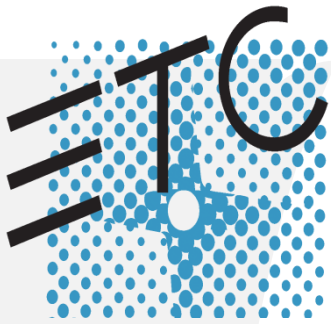
This goal may be a lofty, but considering, a) Group Technology Analysis (GTA): studying and matching the customer requirements with production capabilities, simplifying product design and procurement and other process. b) Combining subsequent jobs with common set ups, if inventory implications are not created.

To make SMED concepts work, five common pitfalls are to be avoided; these are i) Fail to organize, ii) Fail to establish standard work, iii) Fail to maintain equipment, iv) Fail to make the right equipment investments and v) Fail to determine the value of equipment time.

The advantages of SMED Concepts are i) Greater Production, Increased machine work rates from reduced setup times even if number of changeovers increases ,Elimination of setup errors and elimination of trial runs reduces defect rates ii) Less Waste, Elimination of unusable stock from model changeovers and demand estimate errors, iii) Improved Quality from fully regulated operating conditions in advance, iv) Improved Safety from simpler setups, v) Fewer Inventory complications, vi) Lower Skill requirements since changes are now designed into the process rather than a matter of skilled judgment, Ability to mix production gives flexibility and further inventory reductions as well as opening the door to revolutionized production methods (large orders ≠ large production lot sizes) vii) New Attitudes on Controllability of work process etc.

After the implementation, and taking into account a longer time frame as well as the operational and deployment stages, the top management has to define a brand new organizational structure that involves production planning, production process control, maintenance, quality and SMED teams. Clearly, in times of relentless competitiveness, process innovation can be an extremely useful tool towards managerial success. An important aspect that was not explicitly addressed was organizational innovation, which was always embedded in the process innovation. Thus, future work needs to highlight the flexibility of the SMED teams, the need to use a knowledge-based approach to properly disseminate the SMED methodology within the organization, the consequences of SMED in the design of new machinery and the inventory reduction of the firm





Etc that matters

Thought Leadership Series

PMI has launched PMI Thought Leadership series

<http://www.pmi.org/learning/talent-management-thought-leadership.aspx>

Enhance your strategic success by enhancing your talent management and leadership drive with this series

Agile L&E

PMI West Bengal Chapter is currently executing a series of “Learn & Earn” Sessions on the topic of Agile principles, practices, tools and techniques. The objective of these sessions are to enable the participants with more advanced, applied level of knowledge to gain an understanding of agile and the ability to apply relevant project management methods, leading to successful agile projects. Starting from September 2014, 5 sessions are being conducted, one session each month on the following topics – (I) Agile Overview, (II) Deep Dive into Scrum, (III) Agile user Story, Agile Planning & elaboration, Product & Sprint Backlog, (IV) Agile Estimation (V) Agile Monitoring / Tracking, Scrum of Scrum, Distributed agile. The sessions are being taken by renowned Agile practitioner Saikat Dutt, PMP, PMI-ACP, CSM who is the author of the book “PMI Agile Certified Practitioner- Excel with Ease”, published by PEARSON. His other two books ‘Software Engineering – Excel with Ease’ and ‘Software Project Management – Excel with Ease’ are in process of getting published. Saikat has been passionate about grooming new talents in the areas of project management and Agile project execution and handling. His book on PMI ACP certification - “PMI Agile Certified Practitioner-Excel with ease” is one of the most recognized books for preparing for the PMI ACP certification. The chapter is thankful to Saikat for his voluntary initiative in imparting these sessions.



Announcement

PMI WBC organized its AGM for 2014 on 6th September at The Sonnet, Salt Lake, Kolkata



Volunteer for the chapter and enhance your profile

Volunteer experience is getting integrated with professional profile. A professional survey states volunteer work is equally valuable as paid work experience, in today's skill evaluation process. Popular professional network LinkedIn recently added an opportunity to add volunteer experience to profile. Volunteer your time for chapter, and increase your opportunities for leadership, collaboration, networking and enhanced professional profile.

Chapter welcomes our new members

A warm welcome and hearty wishes for a successful career in project management.

Mr. Santanu Das
Mr. Shyama Ghosh
Mr. Sandeep Kumar Mallik

● Mr. Prasanta Kumar Nath
● Mr. Ramjee Ram
● Mr. Ayan Saha
● Mr. Soumilla Sen

Chapter Participation in IBM Corporate event PM ShareNet 2014

PMI West Bengal Chapter is honored to be invited as one of the key speakers in the prestigious IBM Corporate event PM ShareNet 2014, held on 26th Sep 2014, at Kolkata. Thanks to the IBM PM Community in Kolkata for the warm gesture. It was a great experience to connect, collaborate and exchange thoughts with fellow project management professionals at IBM.



Volunteer of the Quarter

● *"Nobody can do everything, but everyone can do something"*; Chapter recognizes and appreciates the effort and support of volunteers for their contribution

Special
Appreciation as
"Volunteer of
Quarter, Winter
2014" goes to
Samya Mukherjee



● Samya is a part of the elite trainers group that has been behind the flagship PMP Training Program organized by PMI West Bengal Chapter. He brings in immense practical knowledge, real life case studies and developed examples to make the training a valuable exercise for all the participants. In spite of having a busy schedule, working with Mjunction Services, Samya has been able to devote time to his passion for training. Chapter recognizes his excellent contribution to the training portfolio.

● Congrats Samya!!!



Share your thoughts and suggestions to
pmiwbc.communication@pmiwbc.org

Visit Chapter Website <http://www.pmiwbc.org/>



[PMI West Bengal Chapter](#)