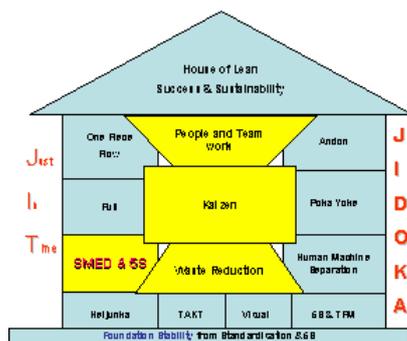




University of  
South Australia

## Strategic Partnerships

**Single Minute Exchange of Die = Exchange dies in less than 10 minutes.**



What would be possible if your changeovers went from several hours to less than ten minutes? This is possible using the Lean “Single Minute Exchange of Dies” (SMED) system.

## Quick Process Changeover (SMED) (Set Up Time Reduction)

Quick changeover incorporates proven, simple process orientated systems and methods to reduce tools, plant or equipment changeover times to facilitate increased capacity, smaller batch sizes, more agility to changing demands, lower inventory and reduced lead times.

Here in Australia we are faced with this business paradigm, where we have ever increasing requests for smaller and more frequent deliveries, changing demands requested at short notice and orders for specials or some form of uniqueness and customisation of the products and services we provide and at low price. This means shorter lead times and the traditional practice of filling orders off the shelf is no longer the preferred option, as carry over costs and risks related to holding inventories are too high. The solution is in batch size reduction, quick response and flexibility, through mastering quick changeover and standardisation.

This workshop will enable you to see the opportunities for productivity improvement and introduce you to the “how to” create SMED champions to implement Quick Changeover into your organisation. Our master SMED facilitator will demonstrate the wastes involved when observing changeovers. You will become well aware of the causes of wasted time, and set about planning for your workplace project to eliminate waste and build a **SMED** quick changeover method for your areas or business.

## Four steps to SMED

The first obvious thing that is noticed is that during changeovers and setup the machine is stopped, even for operations that were totally independent of the machine itself, like preparing tools, dies or various supplies. This first step of the SMED approach, by separating those operations that MUST be done while machine is stopped, called internal setup (IS), from those possibly done while machine runs, called external setup (ES), and total waste or useless operations. By hunting down all causes of wasted time, the participants will be able to describe a changeover sequence in four steps for improvement.

1. Eliminate total wasted time or useless operations, convert IS operations into ES.
2. Simplify fittings and time consuming fasteners.
3. Work together as machine uptime is more important than labour time usually.
4. Limit the need or eliminate altogether adjustments and need for trials.

## Workshop Content & Learning Objectives

**Objectives:** This is an interactive workshop designed to provide participants with a understanding of Lean thinking concepts with a prime focus on Quick Changeover using the Single Minute Exchange of Dies (SMED) approach. This workshop is designed to introduce your team to a quick die change project back in their workplace. This proven learning by doing approach, has several key benefits. The main proven benefits being the application of what is learned in the workshop in a practical, real-world environment and assisting the development of SMED leaders with the proven rapid acceptance and adoption outcome. You get the financial benefits derived from project (rapid return on training investment) and a repeatable SMED process that your business can leverage for future projects

## Day 1 (full day)

- Introduction to Lean Thinking
- 5S Kaizen and relationship to SMED
- Introduction to Quick Die Change (SMED)
- The Benefits of Quick Die Change to Your Organisation
- The Four Basic Phases of Set-Up Reduction
- The Eight Principles of SMED
- Assessing the Process: Internal versus External
- Assigning workplace projects

## Day 2 (late afternoon 3 hour session)

- Review and discussion on workplace projects, lessons learnt and issues.
- Set-Up Process Optimisation & Continuous Improvement.

## Who Should Attend?

Production Managers, Supervisors & Leading Hands, Engineers, Technicians, Set-up & Maintenance Personnel, Office Personnel and anyone else in your organisation interested in learning how to continuously reduce change-over time in a production or service environment.

## Quick Die Change (SMED) Project – (DMAIC approach)

1. **Define:** A SMED Project scope and plan (What is the project?)
2. **Measure:** Existing Change-Over Methods, Internal, External & Wasted Time - (What is the current Performance?)
3. **Analyse:** Change-Over SMED Process Rationalisation & Data Analysis (What could it be?)
4. **Improve:** Process Redesign & Optimisation (Conduct 5S - What is the ACTION plan? – Priorities?)
5. **Control:** Implementation of Improvements & Control Plan (How are you going to sustain?)
6. Presentation on findings, plan and lessons learned during application.

## What we provide !

A full set of workshop notes  
Light refreshments and lunch each day