

# The Birth Of LEAN

**The 1980s was a Renaissance period for Manufacturing and Engineering**

*Many believe this was created by the Space Race!!!*

*Others believe it was due to the next generation of post war younger management.*

*Others believe that its was the start of greater global competition!*

*It's certainly changed the way we manufacturer and run a business!*

**NEXUS**

1970 BUSINESS SYSTEMS 1980 1985 1990 1995

MRP (Materials Resource planning)  
CIM

Pull systems

MRP 2 (Manufacturing Resource Planning)

ERP (Enterprise Requirements Planning)

**MANUFACTURING**

*W E Deming*  
*The father of Quality Management*

**JIT**  
QDC

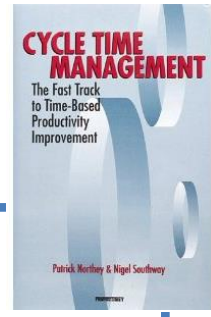
SPC

Theory of constraints(The GOAL)

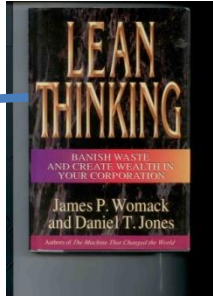
**Cycle Time Management**

Kaizan  
TPM

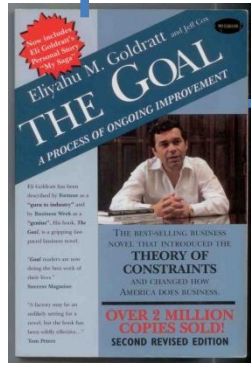
Problem Solving/8D/5Y  
DOE (Design Of Experiments)



**LEAN THINKING**



**NEW PRODUCT INTRODUCTION**



Product teams  
Simultaneous engineering  
Phase Review process  
DFM

**Six Sigma**  
(Motorola)

QS9000/APQP  
Problem solving 8D /5Y /4 phase etc

**CULTURE CHANGE**

**TOYOTA PRODUCTION SYSTEM**

**Visual factory /5S**

Participative management style  
Teamwork power  
People Empowerment  
Pay for skills/Gain sharing

**SUPPLY**

Supplier management/partnering

**MEASUREMENTS**

Value Engineering

ABC  
(Activity based Costing)  
Pyramid/Balanced Scorecard

**NEXUS**

# Reading list... *Lean Thinking*

- The JIT threat... “Made in Japan” Early 80s... TPS etc
- The GOAL... 1984 Goldratt
- TOTAL CYCLE TIME 1985 Phil Thomas
- World Class Manufacturing 1986 Schonberger
- Time.. A Competitive Advantage 1990 George Stalk BCG
- Measure-Up (Performance Measurement Score-carding) 1990 Lynch and Cross
- Cycle Time Management 1993 Northey/Southway
- Lean thinking 1996 Womak/Jones
- **LEAN for Dummies** 2007 Sayer/Williams

## Now!!!

Many LEAN Educational packages..... Many LEAN software Took-kits on the web.

**SME LEAN/Six Sigma Certification programs.....** [www.sme.org/lean-certification.aspx](http://www.sme.org/lean-certification.aspx)

NEXUS Information Package [www.nigelsouthway.com/positional-papers](http://www.nigelsouthway.com/positional-papers)

NEXUS LEAN SELF ASSESSMENT TOOLKIT....

<http://www.nigelsouthway.com/app/download/7118659904/Survey+SME+LEAN+scorecard+starter+rev2.xls>

**NEXUS**