

Lean Six Sigma: A Critical Value Driver for 3M

Jerome Hamilton – Vice President, Lean Six Sigma & Corporate Supply Chain Acquisition Integration



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Lean Six Sigma Evolution

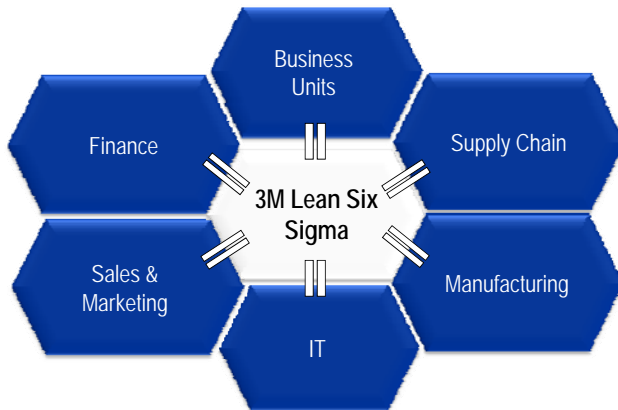


- 2012 and beyond: deeper Lean penetration in developing markets
- LSS deployment in acquisition integration
- Increase supply chain optimization focus

- 65,000 employees trained
- 73,000 projects closed or in-process
- 450+ full-time, committed resources globally
- 720 customer projects either in-process or closed since inception



Lean Six Sigma is creating natural deep connections within 3M



- Common Leadership Language
- Leadership Development
- Best Practice Replication

3M's common language, connecting functions across our global operations

3M's Six Sigma capability continues to grow



Black Belts in every geographic region

Over 90% of all employees Six Sigma trained (GB)

99% of executives Six Sigma trained

Lean Six Sigma is a major contributor to 3M's success

Annual LSS Cost Project Savings
\$Billions



LSS projects needed in order to...

- Fund additional technology development and new product launches
- Finance new plant start-ups
- Offset inflation and other cost increases

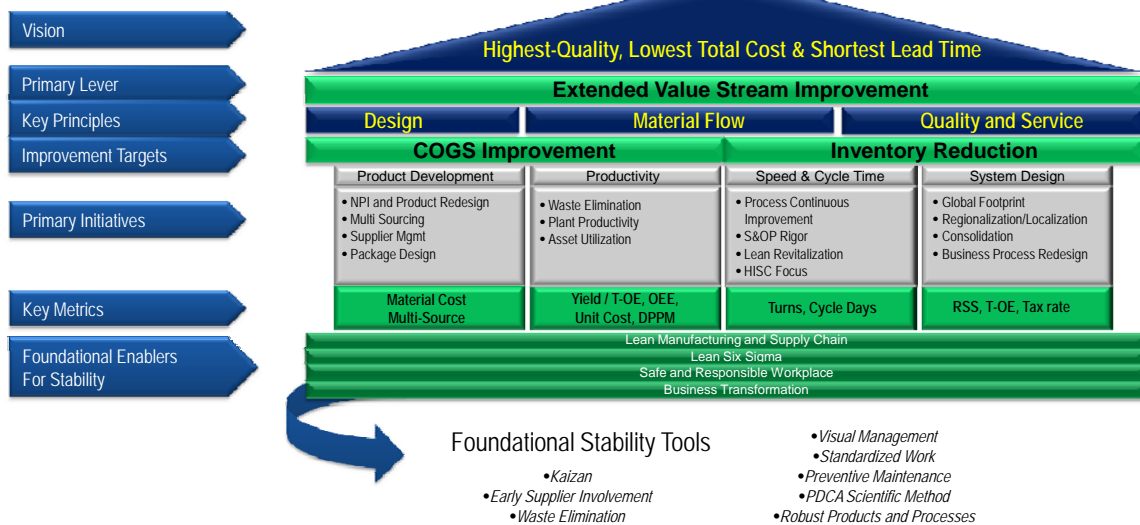
...while at the same time, 3M continues to deliver premium returns

- Low 20s operating margins and 20%+ ROIC

Creating the fuel to drive continued growth in sales and profits

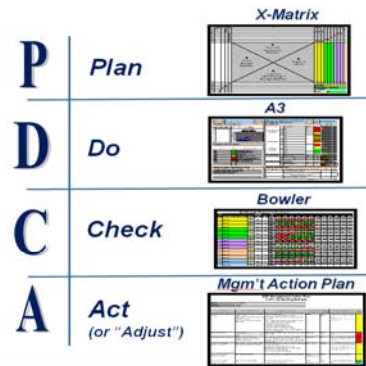
3M's manufacturing & supply chain House of Excellence

Fortifying our operating framework even further



Successful business execution requires a disciplined focus on the vital few

- What are the vital few priorities / attributes that **MUST** be in place in order for an organization to successfully deliver business results?



Keys for Success

Resource Allocation & Alignment

- Focus on **vital few**
- Cross-functional prioritization to deliver "the business plan"

Accountability

- All key business processes have an **A3 owner**
- Key business metrics are **aligned directly** to employee contribution & development plans

Execution

- Execution and development **mindset is elevated** (plans in balance with and align to organization's capacity to implement)
- Continuous and step-change** improvements through business improvement process

Using Lean Six Sigma to enable successful in-sourcing

Step-change in cost improvement to capture more of the value chain

LSS project example – respirator unit cost reduction

	2013	2014	2015
Unit Volume – Millions	0.9	1.3	1.5
Unit Cost Reduction vs. Outsourcing Option	40%	44%	45%
Annual Savings - \$ Thousands	\$400K	\$700K	\$800K



2012 3M Quality Achievement Award



Business: 3M Communication Markets

LSS Project: Transition from lead to lead-free soldering on single pair protection plugs

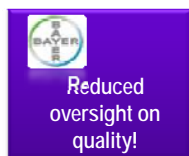


3M Pondicherry, India
Simpler Solution Greater Results Team

ACHIEVEMENTS

- ❖ Yield improvements of over 90%
- ❖ Shift output improvement by 20%
- ❖ Rework reduction of over 65%
- ❖ Reduction in power use by 10%
- ❖ ZERO customer defects

Customer voices...



Our mission of customer success is paying off across the company

Looking ahead, we are accelerating Lean penetration even further

Accelerate cash generation

Reduce costs

Support growth



Strategic Imperatives 2013-17

In Summary

- 3M's strong Lean Six Sigma foundation is deeply imbedded in our operations and has been a key enabler of 3M's success
- We are adding resources to further support new manufacturing and supply chain operations in high-growth developing markets
- We will build on and leverage our successes in acquisition integration

Great success thus far, with more opportunity yet to come!