



LEAN SIX SIGMA

Advantages and Disadvantages of Various Lean Six Sigma Deployment Approaches

Richard Aldous
Rethink Management Consulting

Agenda



- **What is Lean Six Sigma**
- **Top Down**
- **Bottom Up**
- **Lean Six Sigma Awareness and Training**
- **External Specialists**
- **Governance Structure**
- **Success criteria**

What is Lean?

- Lean Manufacturing originated in the 1950's (Toyota Production System)
- Lean was based on Henry Ford's philosophy of low cost, fast lead time and high quality and Deming's 14 Points of Total Quality Management (TQM)
- Lean was adopted widely by manufacturing companies in the 1990's as a rapid problem solving approach
- Increasingly it is being used in financial services and transactional environments
- Focus on **Waste Elimination** to reduce **Time**
- Tools to identify and attack waste through simple techniques anyone can apply daily in a relentless pursuit of further improvement

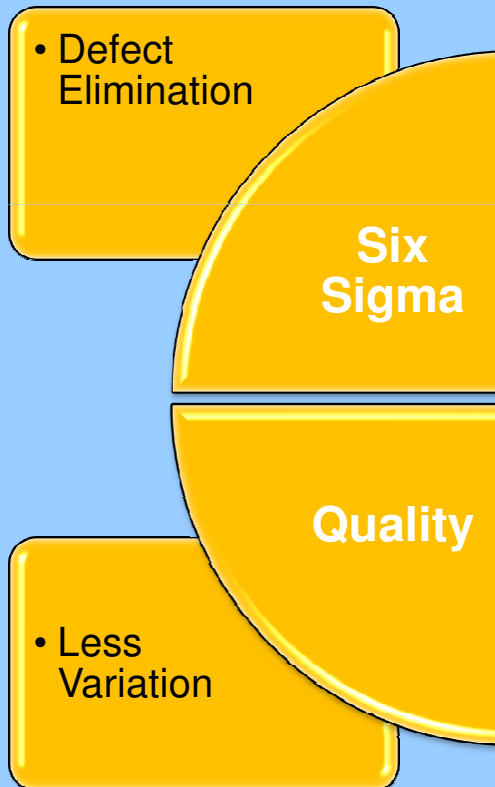
“Anything that does not add value for the customer is waste”



What is Six Sigma?

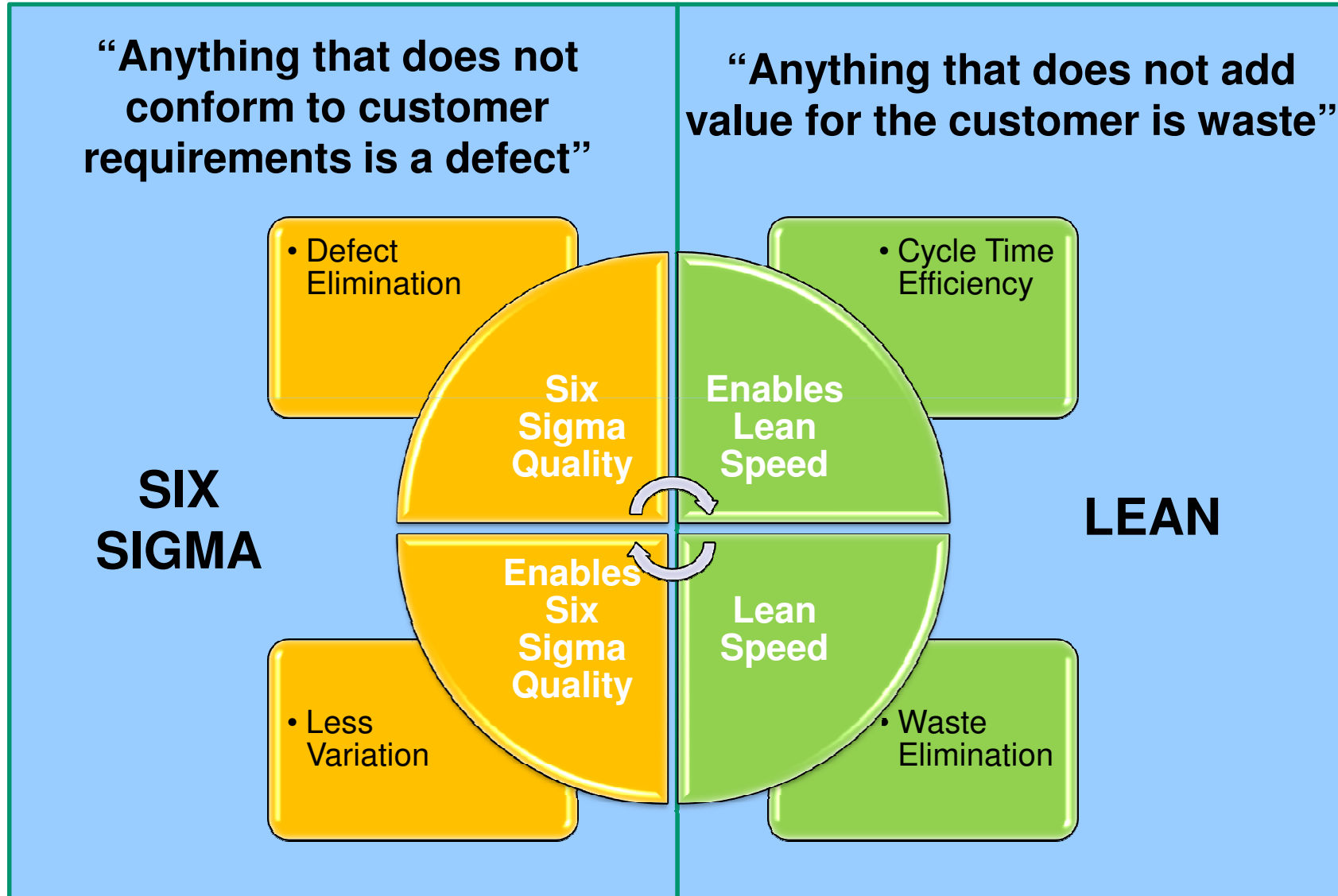
“Anything that does not conform to customer requirements is a defect”

**SIX
SIGMA**



- Made popular in 1986/7 by the Motorola Corporation based on old concepts
- Expanded to GE where it was adopted as a management philosophy in the 1990's
- Recognized as a powerful approach to achieve business process improvements
- Recently being adopted by financial services and transactional environments
- Focus on **Variation Reduction** to improve **Quality**
- Results driven approach suitable for all kinds of processes
- Works for simple and complex problems
- Dramatically raises problem-solving capability (DMAIC) with a projectised approach

Lean Six Sigma Is The Integration of Two Powerful Business Improvement Approaches



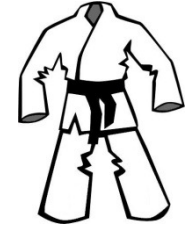
Why Implement Lean Six Sigma?

Why implement Lean Six Sigma?



To achieve both Quality (Six Sigma) and Waste Reduction (Lean) benefits that result in:

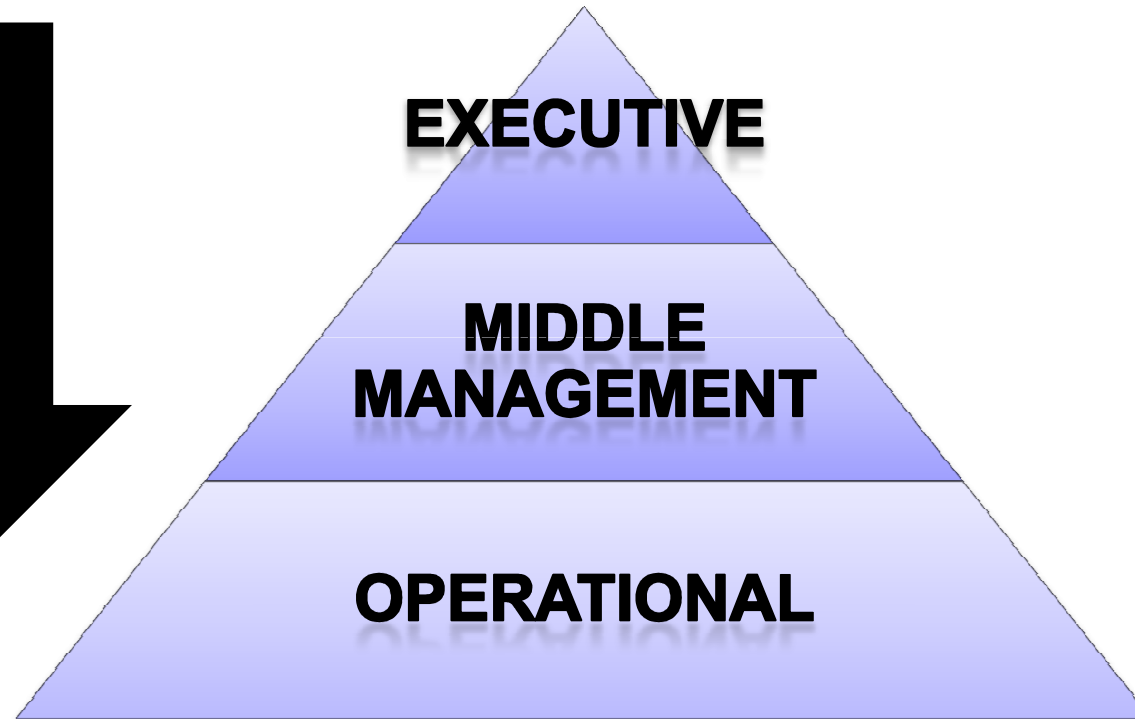
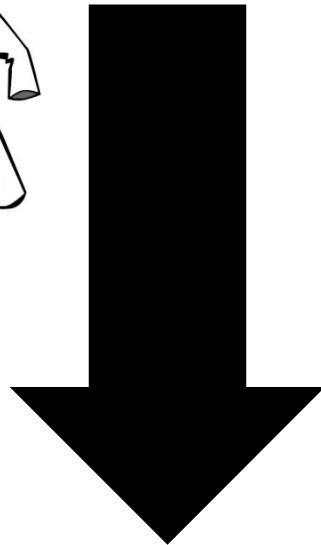
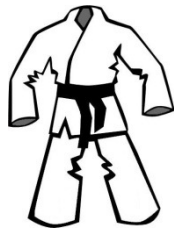
- Shorter customer fulfilment lead times
- Improved quality
- Lower costs
- Improved capacity utilisation
- Maximise invested capital
- Customer loyalty and retention



Top Down

Top Down...

Top Down (Black Belt)



Top Down...

Characteristics:

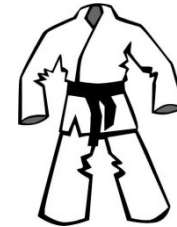
- Company wide program/plan
- Executive Sponsorship
- High impact and focus
- Experienced coaches in early phases
- Multiple dedicated teams – Lead by Black Belts
- Black Belt experience remains a key to success
- Extract top performers and allocate 100% to project
- Large investment made in training and future career
- Greater chance of realised benefits
- Greater focus on use of LSS tools
- Higher impact & breadth of projects
- Greater empowerment of Black Belts
- Higher trained team structure



Top Down...

Advantages

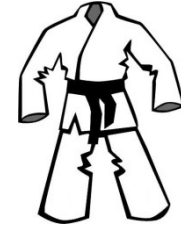
- Aligned to Strategy
- Will have top support, driven by and accountable – Champion may even be executive level
- Relative high level of benefit achievable
- Longer term sustainability
- Ability to leverage black belts for training of green belts across greater organisation
- “Career path” – incentive to become BB

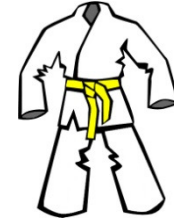


Top Down...

Disadvantages

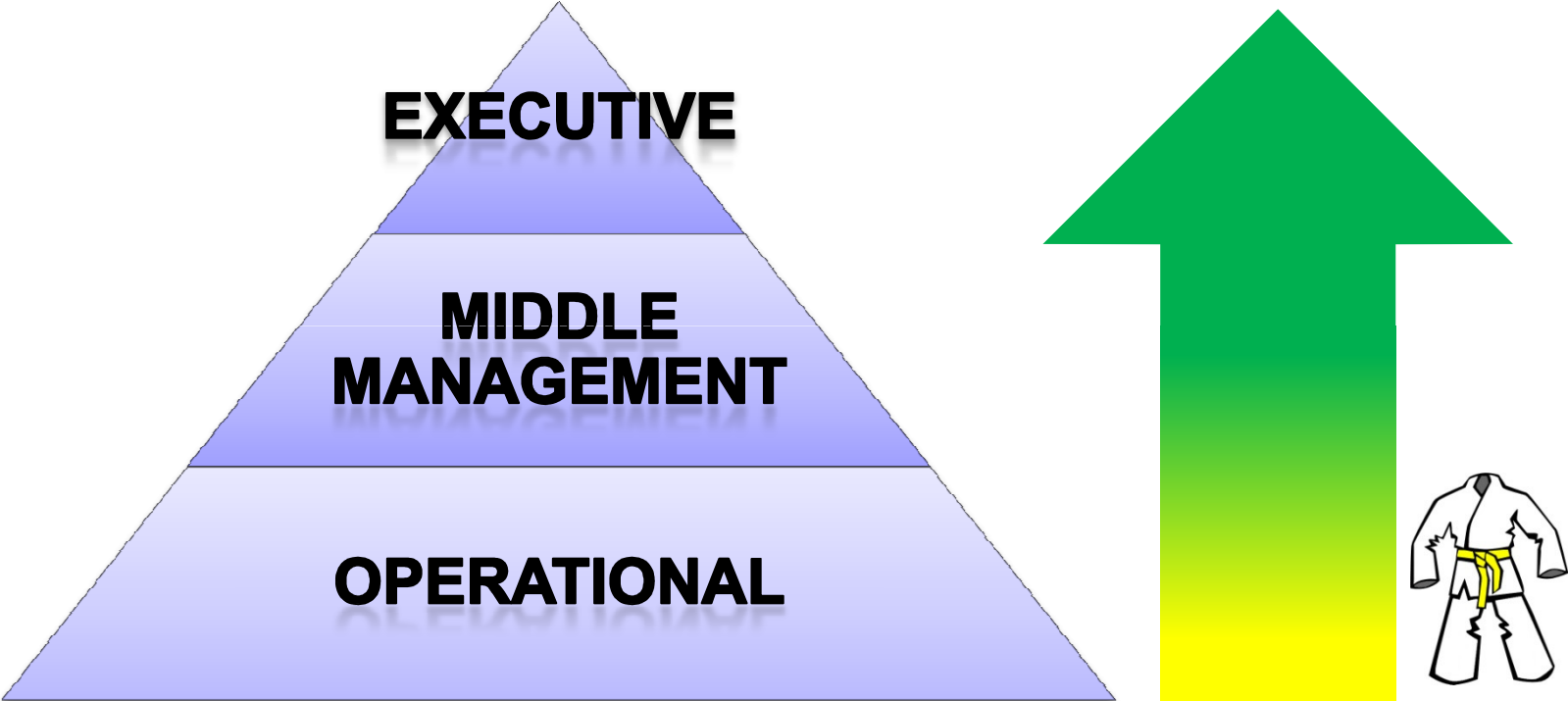
- Need to lead by example
- High change management requirements
- Higher cost and dedication requirements
- Risk of early inexperience
- Scarcity of skills





Bottom Up

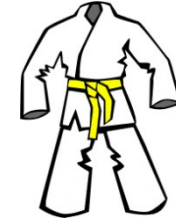
Bottom Up...



Bottom Up (Yellow / Green Belt)

Bottom Up...

Characteristics:

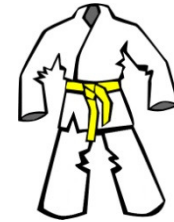


- Projects are initiated and run within departments
- Shorter project times
- Lower impact projects
- Very hands on and operational approach
- Experienced coaches in early phases
- Dedicated/part time staff (perhaps at a lower level of staff), team members are yellow belts or SME's
- Less of a view on LSS methods and tools
- Less training requirement (yellow belt, green belt)

Bottom Up...

Advantages

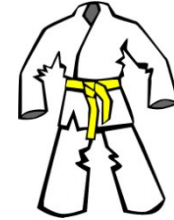
- “Easier” access to required staff
- More skills transfer takes place
- Moderate level of benefits achievable
- Organic Buy-In (may be more difficult to achieve?)
- Less costly, “easier” to implement
- Less demands on staff



Bottom Up...

Disadvantages

- No strong link to strategy
- KPI and rewards must be linked directly to LSS outputs to incentivise
- Sustainability is a risk
- Benefits tracking may not be an integral part of the deployment initially
- Lesser chance of realised benefits





Lean Six Sigma Awareness and Training

LSS Awareness and Training...



Characteristics

- Has top level support
- Mass training of staff at Green and Yellow belt level
- Improvement projects are not run as a corporate wide program
- Initiatives are identified and managed at departmental level
- Empower people to do it themselves
- No centralised focused LSS roles
- Less governance



LSS Awareness and Training...



Advantages

- Build internal knowledge (doesn't guarantee competence)
- Potential to become self sufficient
- Indoctrinate LSS from beginning
- Career development



LSS Awareness and Training...



Disadvantages

- Low level of improvement
 - Knowledge \neq Competence
 - If personnel not reward or recognised they will leave – as they are in demand
 - Training alone will not deliver results
 - Tendency to focus on training and not implementation of benefits
 - ROI not tracked
 - No formal adoption or entrenchment of LSS
- Frustration due to lack of top management support





External Specialists

External Specialists

Characteristics

- Project specific
- High impact
- High focus on benefit realisation
- Use of external LSS specialist
- Should include skills transfer



External Specialists...

Advantages

- Speed and results
- Competence and experience
- Good method of knowledge and skills transfer
- Frees internal capacity (less dedicated resources required)
- Does not distract from business as usual

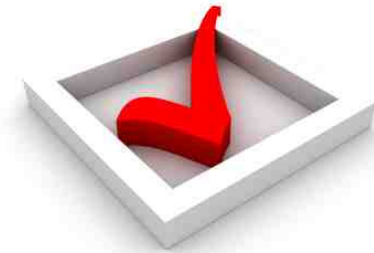


External Specialists...

Disadvantages

- Expensive – relative
- Client will be reliant on consultants to deliver LSS results
- No retention or development of internal knowledge or skills



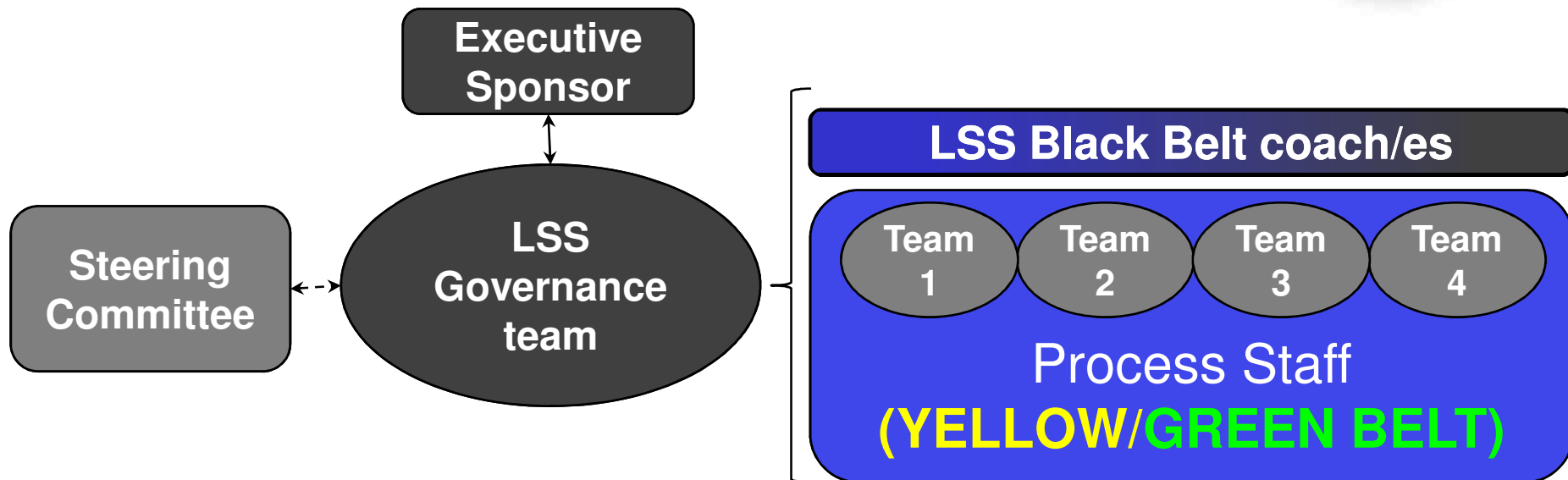
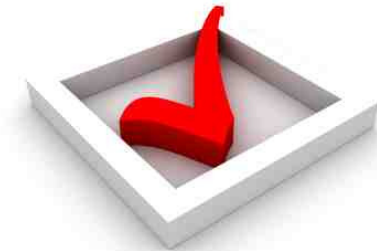


Governance Structure

LSS Governance Structure



Typical Multi-Team Governance Structure





Success Criteria

Success Criteria

- Team members must sever from daily duties
 - Black Belts / team leaders **HAVE** to be dedicated
 - Team members less so, however less focus = less results
- Do not treat LSS as an academic exercise
- You must measure and communicate **RESULTS**
- You need to use the appropriate tool for the problem
- Do not underestimate the people component in implementing LSS, Change Management is key
- Team members have to get your hands dirty to achieve results
- You must have clear goals when deploying LSS (LSS is not a flavour of the month)
- Clear link to organisation strategy





So which LSS approach?

So which LSS approach?



High Benefit
Process Optimisation
and DFSS

Moderate Benefit
Process Simplification,
Basic Tools & Lean
Methods

Low Benefit
Logic and simple
improvements

Yellow	Green	Black
Yellow	Green	Black
Yellow	Green	Light Grey
Yellow	Light Grey	Light Grey

Web

LEAN

SIX SIGMA

Questions?

Thank You