

LEAN SIX SIGMA WHITE BELT COURSE



BELTS

WHAT THEY ARE AND WHAT THEY MEAN

	“Licensed to Learn”			“Licensed to Lead”	
Belt Level	WHITE	YELLOW	GREEN	BLACK	MASTER BLACK
Applying Lean	Novice	Beginner	Intermediate	Advanced	Advanced
Applying Six Sigma	Novice	Novice	Beginner	Intermediate	Advanced
Role	- Interest in LSS - Support LSS efforts led by GB+	- Advocate for LSS culture - Apply Lean with GB+ oversight - Support LSS efforts led by GB+	- Lead Lean efforts - Apply Six Sigma with BB+ oversight - Support LLS efforts led by BB+ - Mentor peers and YBs	- Lead Lean/Six Sigma efforts - Mentor peers and GBs - Customize tools to fit specific needs	- Lead strategic initiatives - Design CI Programs - Mentor peers, business leaders, and BBs

- Globally recognized certifications for Lean, Six Sigma, or Lean Six Sigma practitioners.
- Inspired by the belt system in martial arts.
- Less-common colors exist, such as orange and blue.
- Some companies value the LSS expertise, but don’t acknowledge the belts.
- This chart shows the expected skill levels at the time of certification. (i.e. A seasoned GB will likely display skills at the BB level.)

YOUR CERTIFICATION JOURNEY

Seasoned Green Belts with a passion for statistics can continue their journey by pursuing LSS Black Belt and Master Black Belt certifications.

GREEN BELT

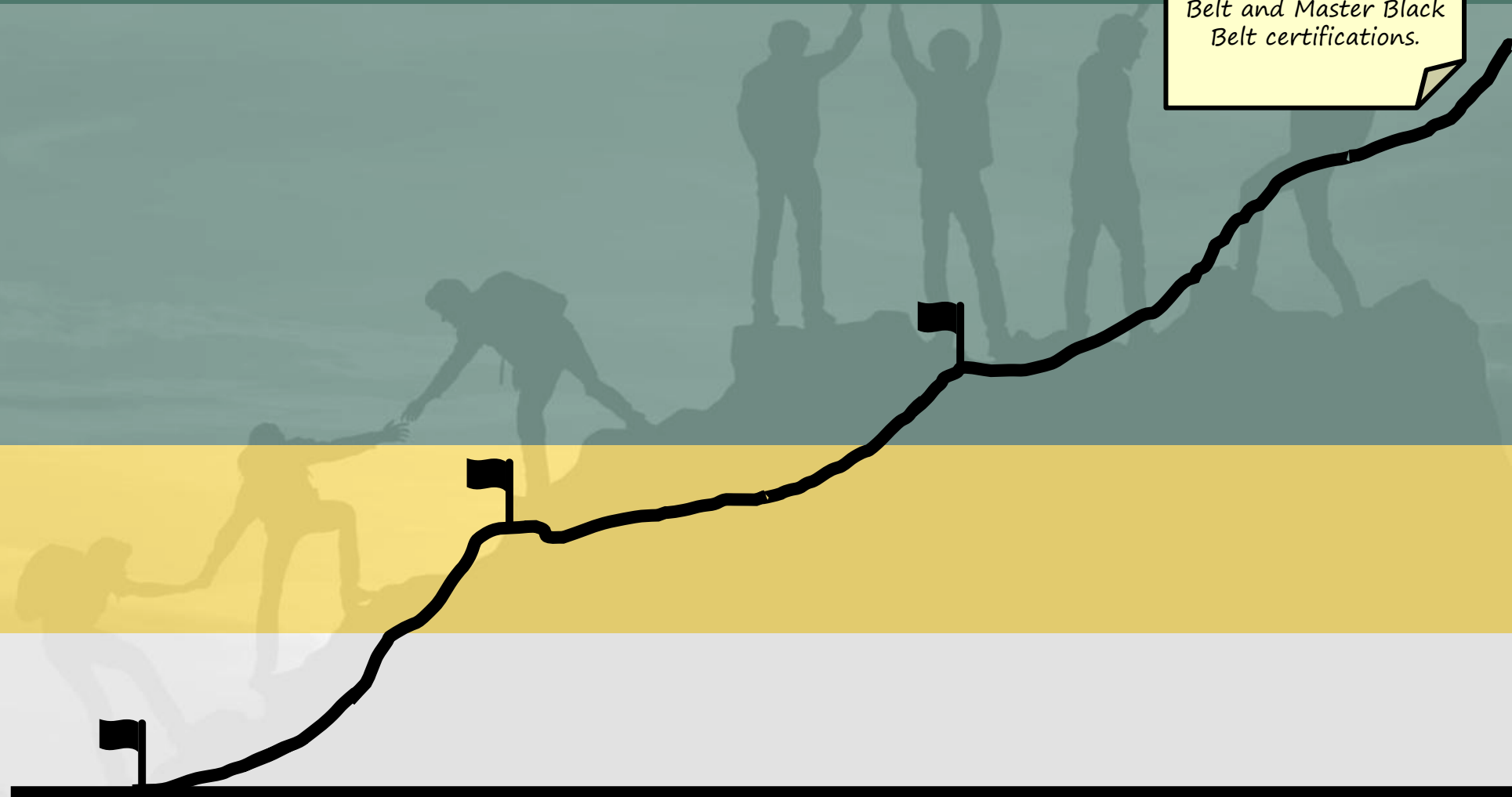
Capable of solving problems using LSS thinking

YELLOW BELT

familiar with more than 100 LSS terms

WHITE BELT

aware of and motivated for the journey ahead



LEAN

- Improving processes by reducing **WASTE**.
- It's possible to run a process too Lean – like an engine. This is why we don't seek to eliminate all waste.
- Example:



SIX SIGMA

- Improving processes by reducing **VARIATION**.
- Variation is natural and not 'bad', if it can be controlled. This is why we don't seek to eliminate all variation.
- Example:



PROBLEM

- Whenever expectations do not align with reality.
- Always define a problem using the customer's perspective.
- To solve a problem, you must first look for clues (data) to understand what's happening.



GEMBA WALK

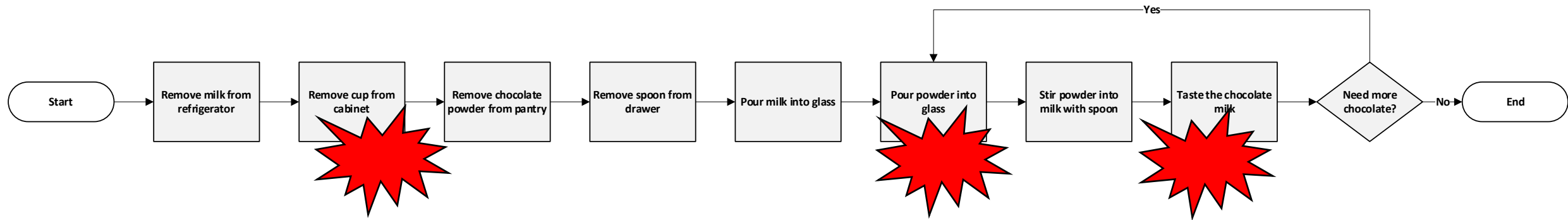
- Derived from the Japanese word “Gembutsu”, meaning “the real place”.
- The act of observing what’s happening without interfering.
- Never assume you know what’s going on. Go to the Gemba!
- Note: This is a type of sampling.



PROCESS MAP

- After seeing what's happening, turn what you saw into a simple visual, describing the steps you witnessed, in order.
- Use blocks to display steps taken and diamonds to display decisions.
- Flag any waste or variation you witnessed.





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SIX SIGMA

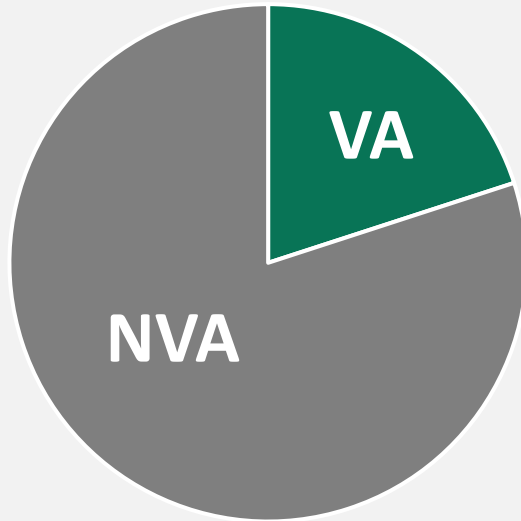
- Improving processes by reducing **VARIATION**.
- Variation is natural and not 'bad', if it can be controlled. This is why we don't seek to eliminate all variation.
- Example:



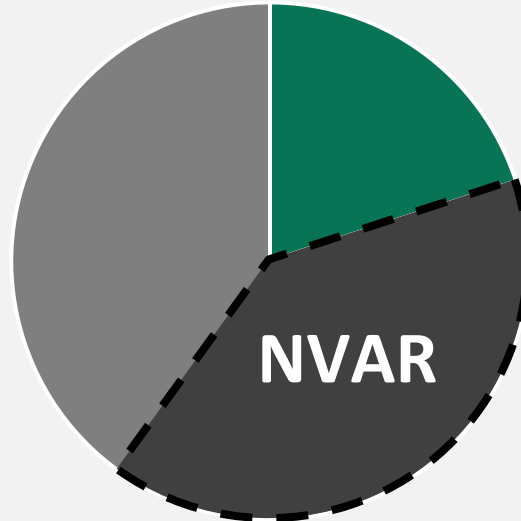
"GOING LEAN"

CATEGORIES OF WASTE AND HOW PI EVENTS ADDRESS THEM

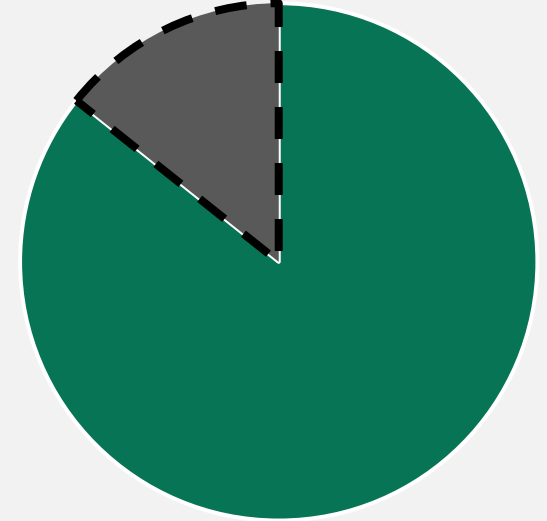
"There is nothing so useless as doing efficiently that which should not be done at all."
-Peter Drucker



Before a PI event, it's common for processes to spend more time on NVA than VA activities.



Some NVA activities are necessary, so we categorize them as Required (NVAR).



PI projects seek to eliminate NVA activities and optimize NVAR activities.

5S

HOW TO QUICKLY IDENTIFY AND REMOVE WASTE

“If you can’t explain it simply, you don’t understand it well enough.”
—Albert Einstein



- Rapid method of identifying and removing waste.
- Explained in detail in our children’s book *Never Lose Anything Ever Again*.
- Written at a 3rd Grade reading level.
- Enjoyed by all ages.

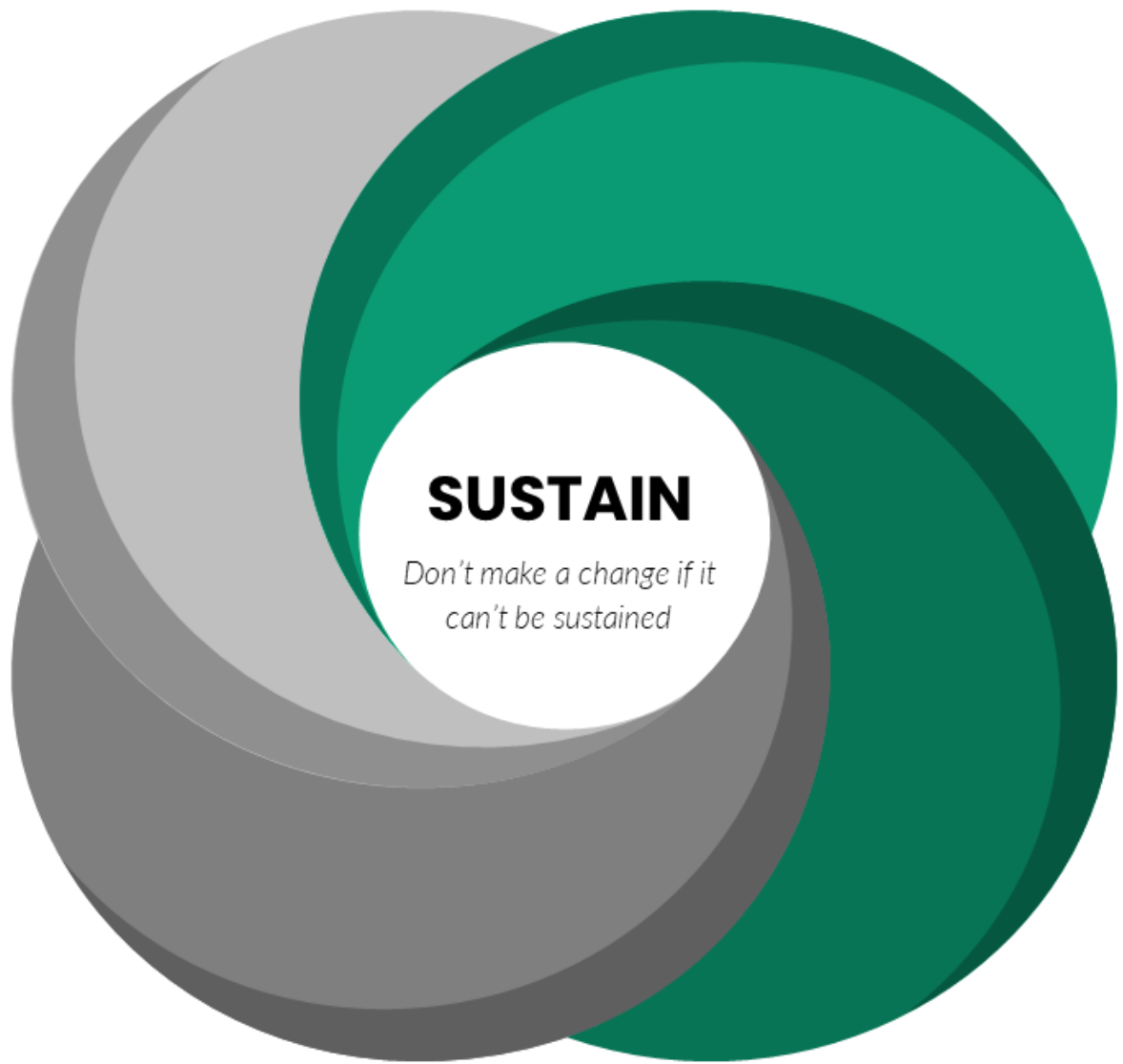
You'll find things you didn't realize you had!

SORT

Identify what brings value; Discard what brings no value

SET IN ORDER

Organize valuable items using usage knowledge



SHINE

Inspect areas for quality and repair any defects

STANDARDIZE

Replicate Sort, Set in Order, and Shine strategies across the business

This is more than cleaning - it's repairing, also!

WASTE

KNOWING THE TYPES MAKES IDENTIFICATION EASY!

Use the acronym

D.O.W.N.T.I.M.E.

to remember the 8 types of waste.

*Some prefer TIM WOODS

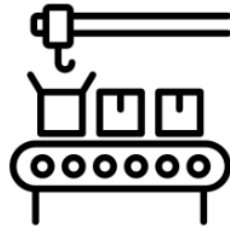
8 TYPES OF WASTE

KNOWING THE TYPE HELPS YOU PLAN NEXT STEPS



DEFECT

failing to meet customer expectations



OVER PRODUCTION

when supply (process output) is greater than customer demand



WAITING

activities that halt or delay a process



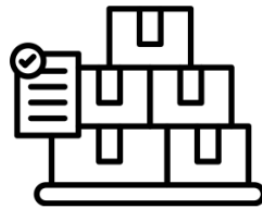
NON-UTILIZED RESOURCE

tools or people that have untapped capability



TRANSPORTATION

movement of things



INVENTORY

collection of materials or resources



MOTION

movement of people



EXTRA PROCESSING

unnecessary steps in a process



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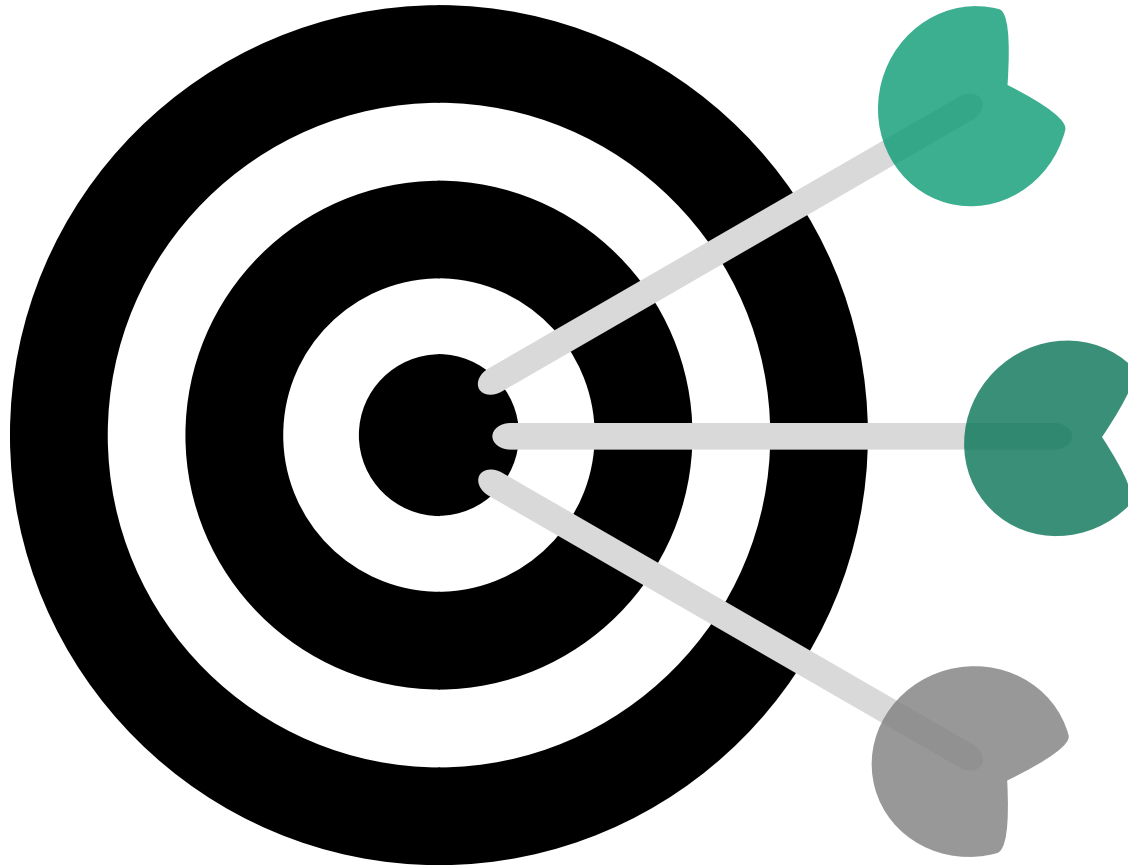
SIX SIGMA

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- Example:



VARIATION

A BRIEF INTRODUCTION



- Normally occurring in nature.
- The more variation there is, the less control exists.
- The lower variation is, the more predictable performance becomes.

KAIZEN

HOW TO QUICKLY IDENTIFY AND REMOVE VARIATION

“If you can’t explain it simply, you don’t understand it well enough.”

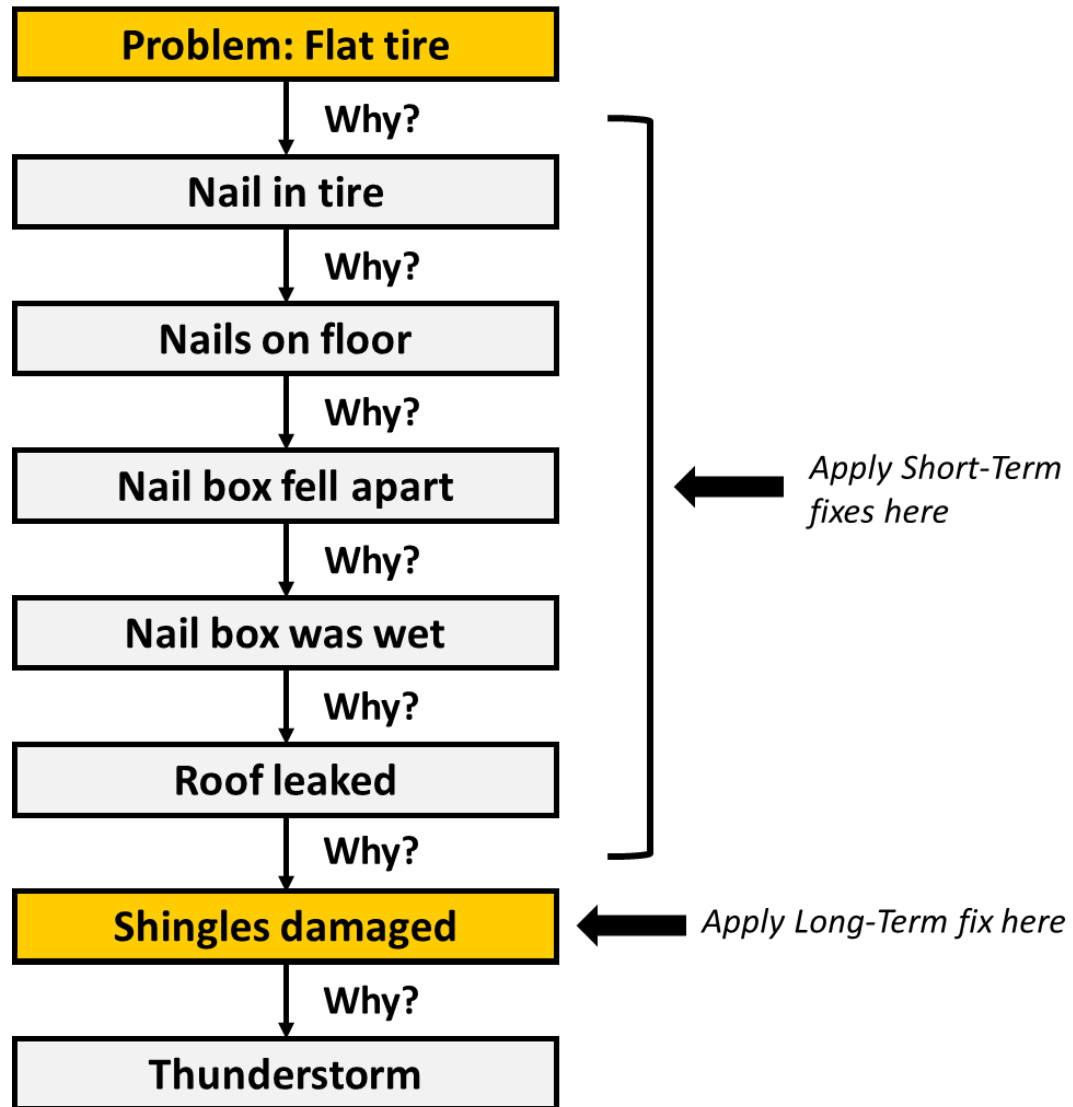
—Albert Einstein



- Japanese, meaning “good change”.
- Explained in detail in our children’s book *Perfection isn’t Possible*.
- Written at a 3rd Grade reading level.
- Enjoyed by all ages.

5 WHYS

- Simple Root Cause Analysis tool.
- Accomplished by asking “Why” over and over.
- Doesn’t have to be exactly five.
- Stop when you reach answers that are uncontrollable.
- TIP: Your problem will be a statement about the variation you’re trying to control.



SHORT-TERM CORRECTIVE ACTION (STCA)

- Like a bandage, an STCA is a temporary solution.
- Quickly implemented but not intended to remain long-term.
- Examples:
 - Temporary workers
 - Renting a portable AC unit
 - Safety-pin holding a seam together
 - Temporary signage
 - Steroid shots



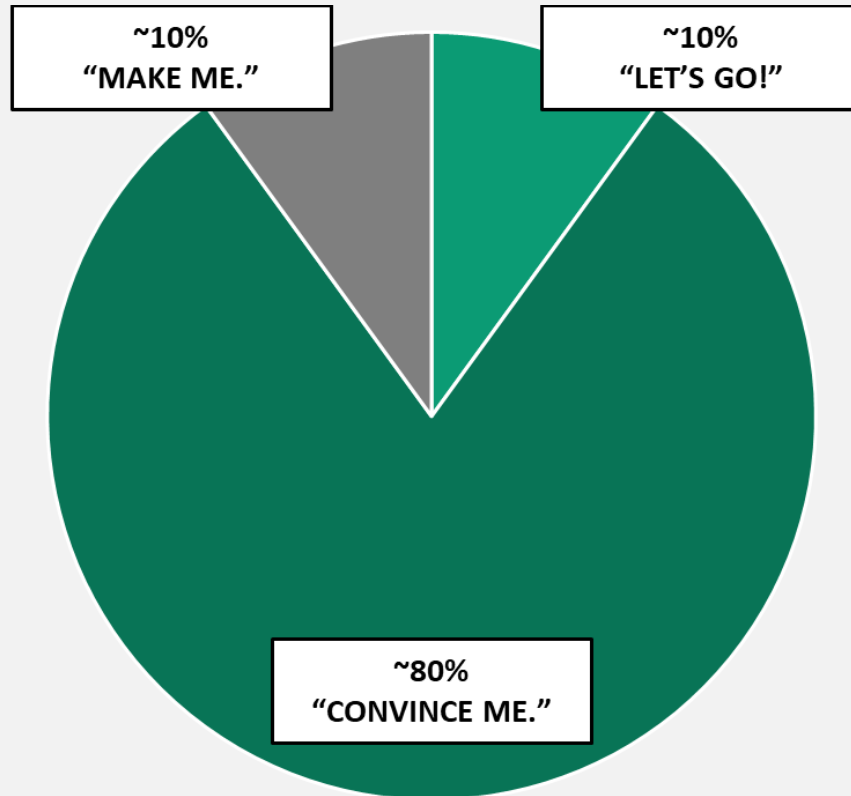
LONG-TERM CORRECTIVE ACTION (LTCA)

- Addresses the Problem at its root in a “permanent” way.
- Replaces any STCAs that were previously implemented.
- Examples:
 - Repairing/Replacing AC unit
 - Sew/patch the damaged seam
 - Permanent signage
 - Changes to policy
 - Surgery



CHANGE MANAGEMENT

NAVIGATING PEOPLE THROUGH CHANGE WITH EXCELLENCE



- Problems are most often caused by poorly set expectations.
- Set your expectations realistically before working with others to solve a problem – everyone's not against you and everyone will not be on your side.



When ready, continue your journey by taking your White Belt Exam!

