

Kaizen

Training for Operational Excellence

Agenda

- Introduction to Kaizen
- Teamwork
- Improvement Strategy
- Kata

Kaizen: A ***philosophy*** that helps to **ensure** maximum **quality**, the **elimination** of **waste**, and **improvements** in **efficiency**, both in terms of equipment and work procedures. Kaizen improvements in **standardized work** help **maximize productivity** at every worksite. Standardized work involves following procedures consistently and therefore employees can identify the problems promptly.

Why bother with Kaizen?

Toyota – Operating profit for 2016 was \$25.34 billion for 10,165,000 cars sold.



VW – Operating profit for 2016 was \$5.4 billion for 10,176,000 cars sold. Stated as "its best-ever performance"

We cannot *Kaizen* without *Standard Work*

and standard work is *Not Training*

Standard Work = Rules

The rule is you follow standard work until Kaizen

Kaizen Principles

A Kaizen must satisfy one of the following principles to be considered Kaizen:

- ✓ Improves Safety
- ✓ Improves Quality
- ✓ Reduces Waste

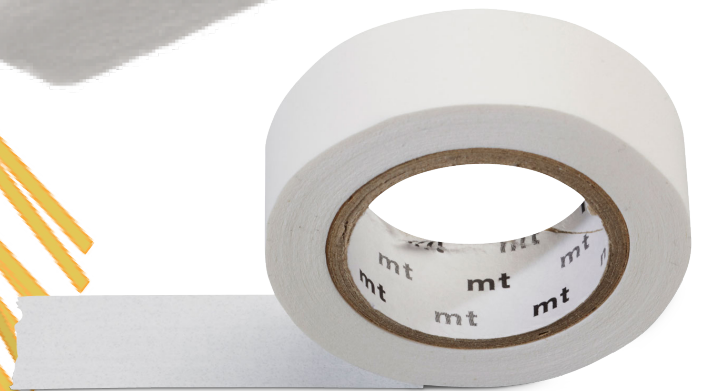
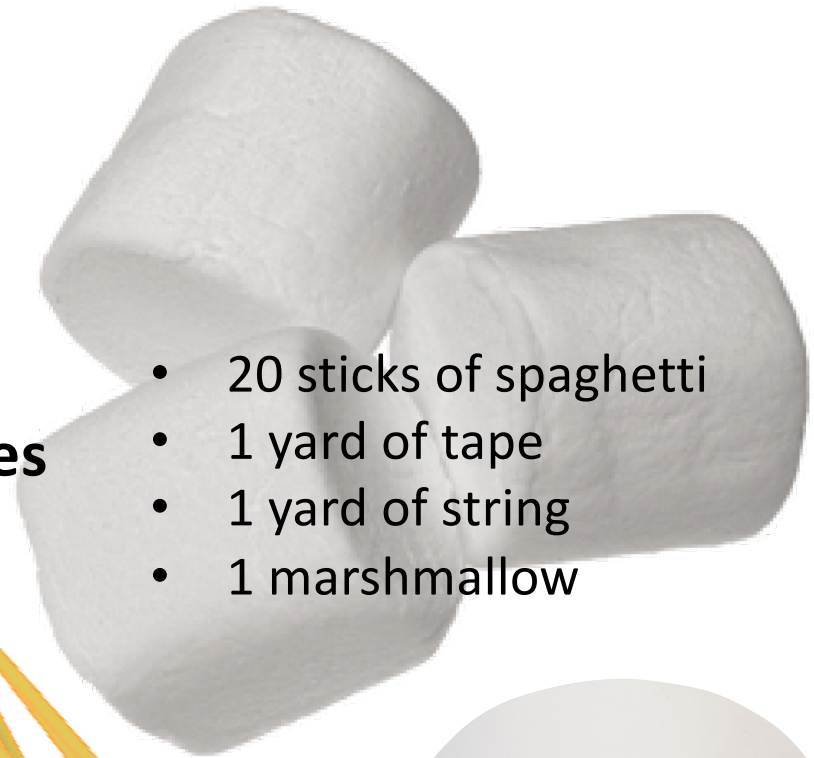
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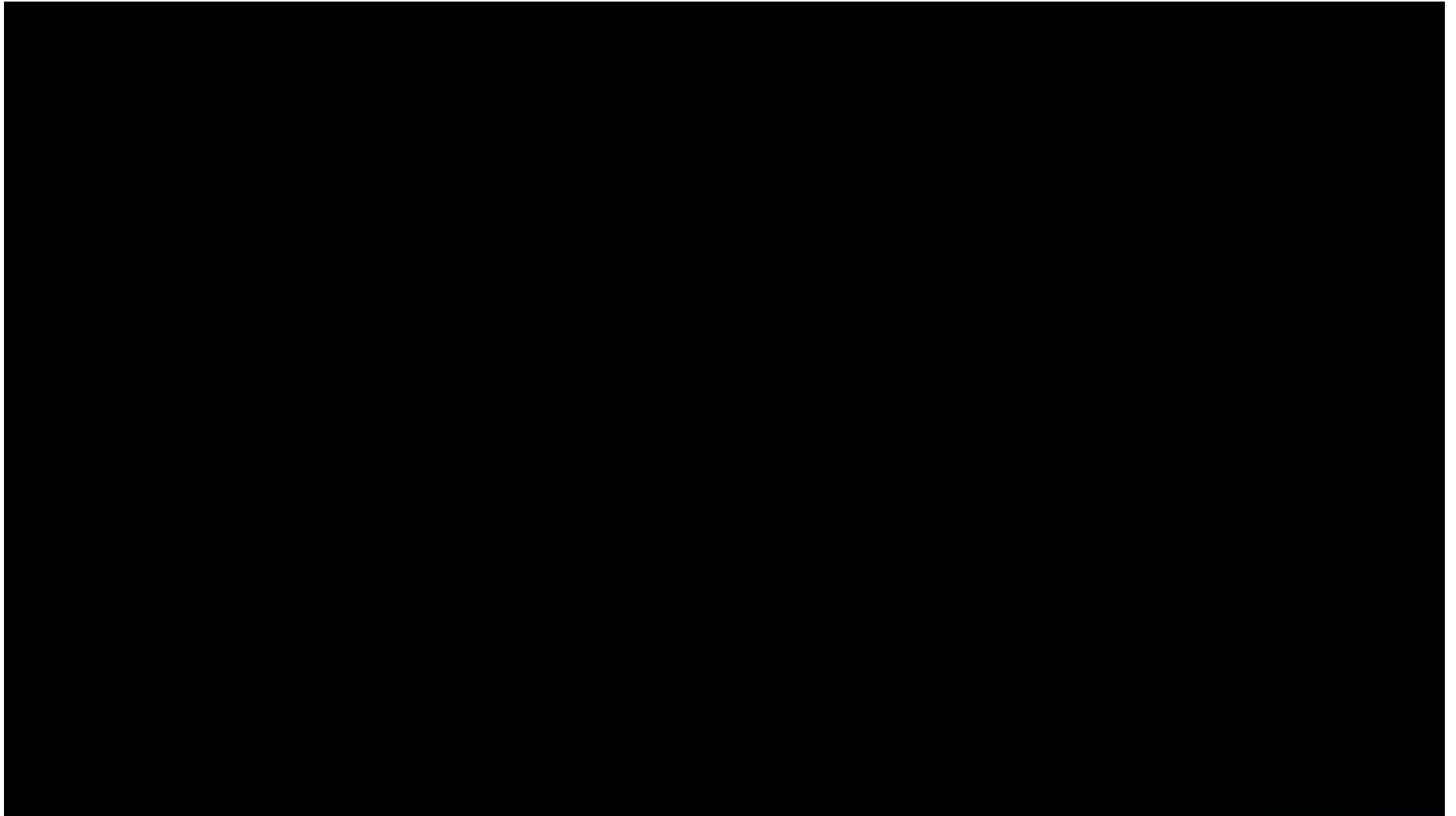
Marshmallow Challenge

Teams build the tallest free-standing structure in 18 minutes

- 20 sticks of spaghetti
- 1 yard of tape
- 1 yard of string
- 1 marshmallow



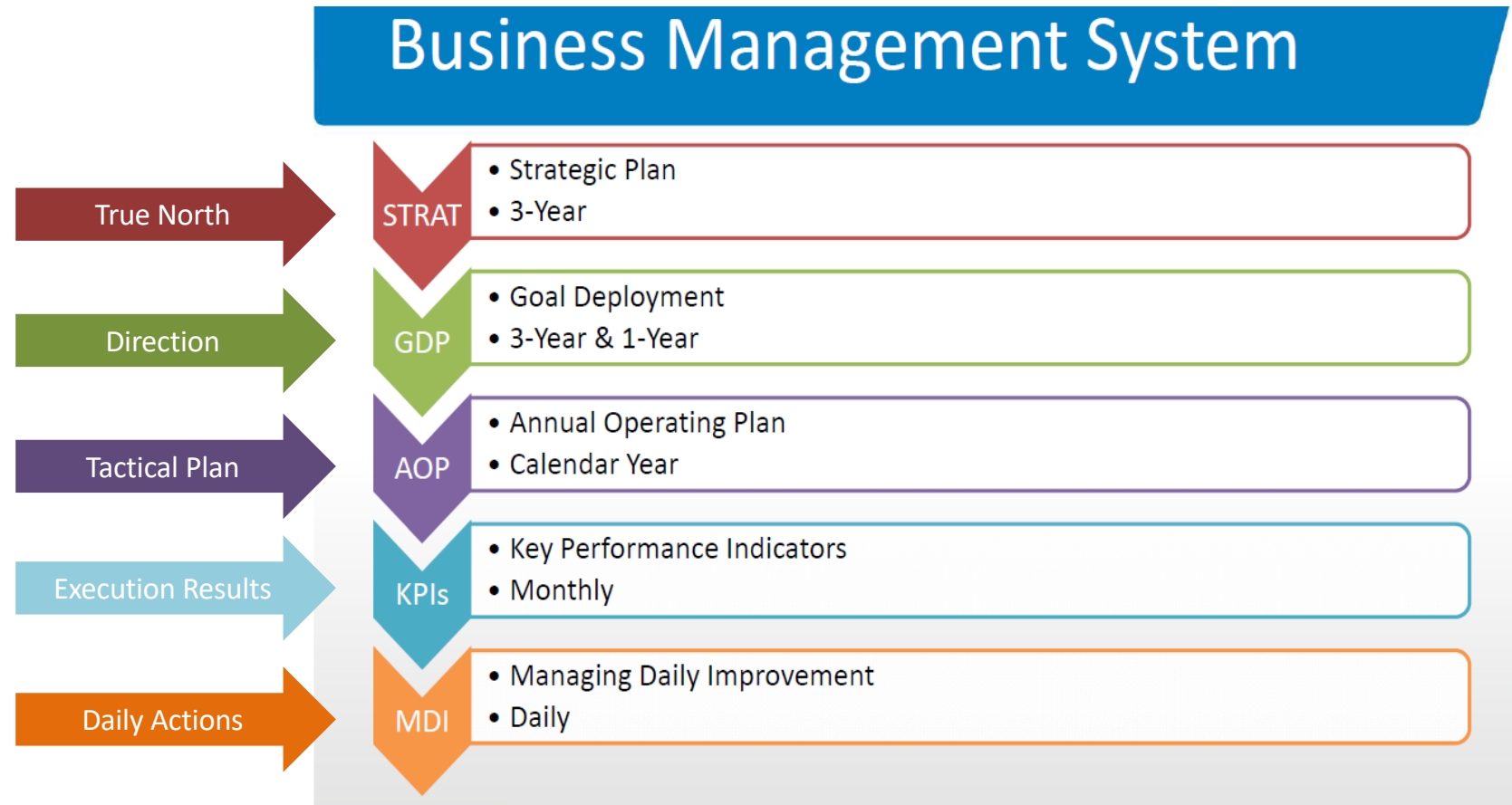
Marshmallow Challenge Explained



Agenda

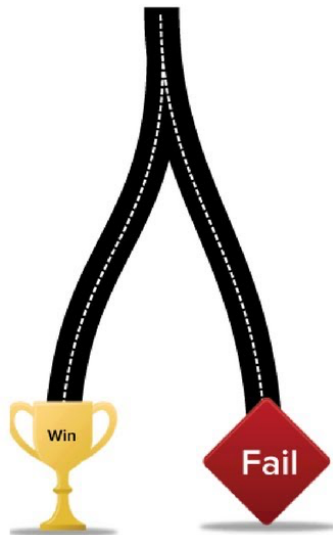
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Unifying the Improvement Process

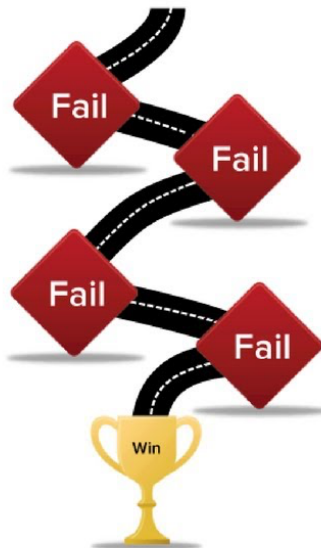


Improvement Method

What Most
People Think



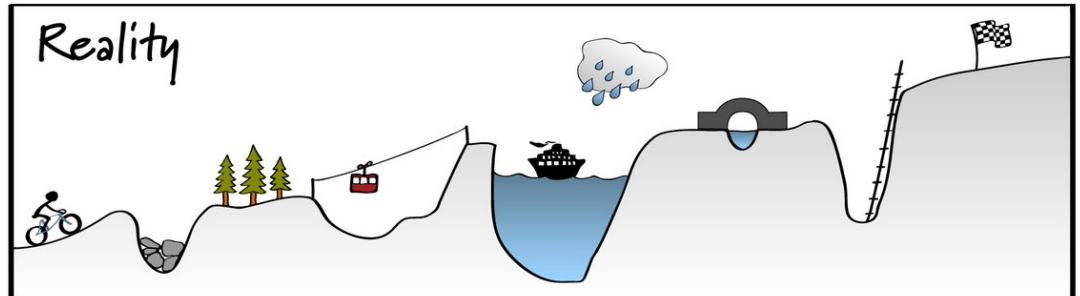
What Successful
People Know



Your Plan



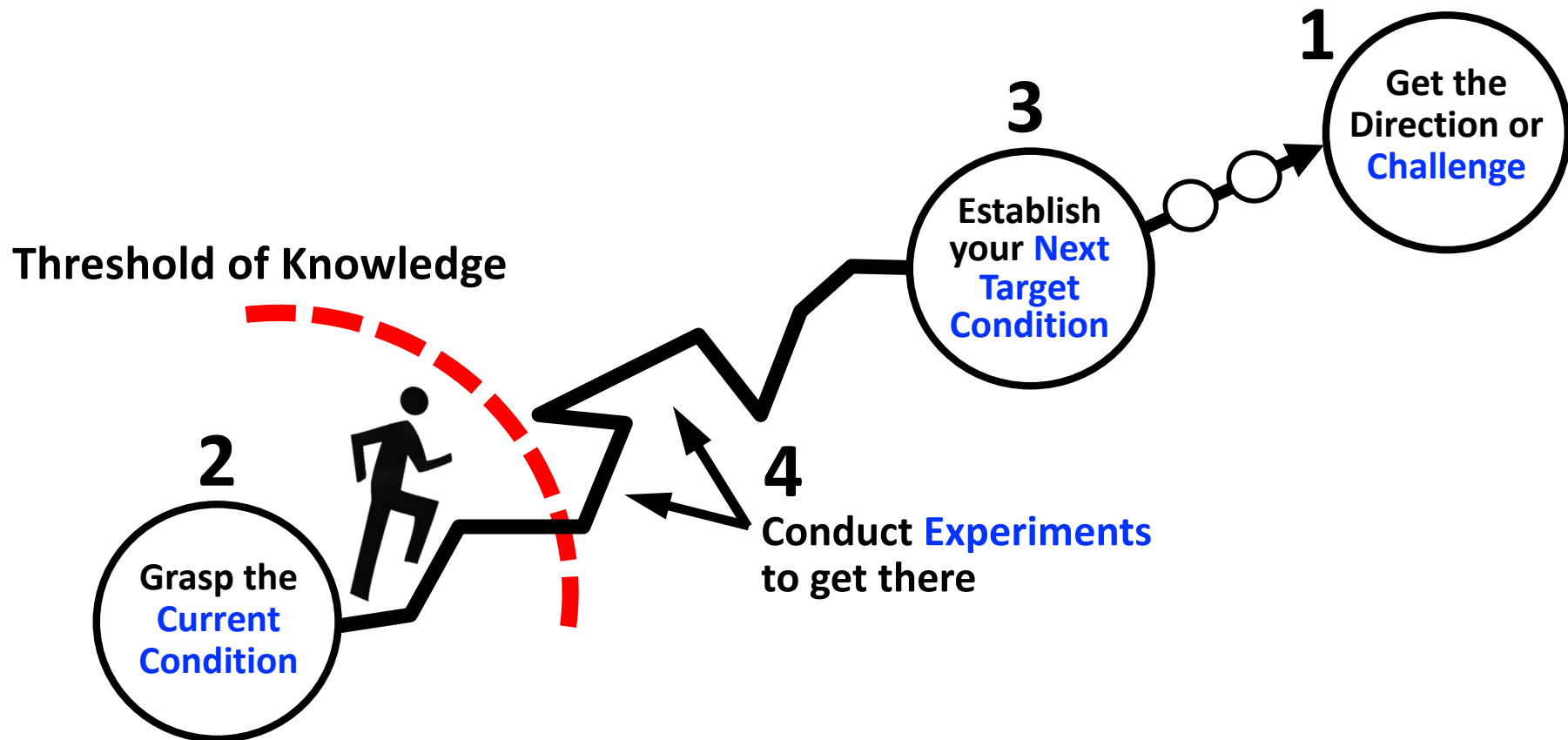
Reality



Failure is proof that you are trying!

THE IMPROVEMENT KATA MODEL

Kata (方) – Suffix Meaning "*Way of Doing*"



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- Kata - Learning PDCA

KATA for DAILY IMPROVEMENT

TWO SKILLS CONSISTENT ACROSS *ALL* CONTEXTS

Making **Improvements**

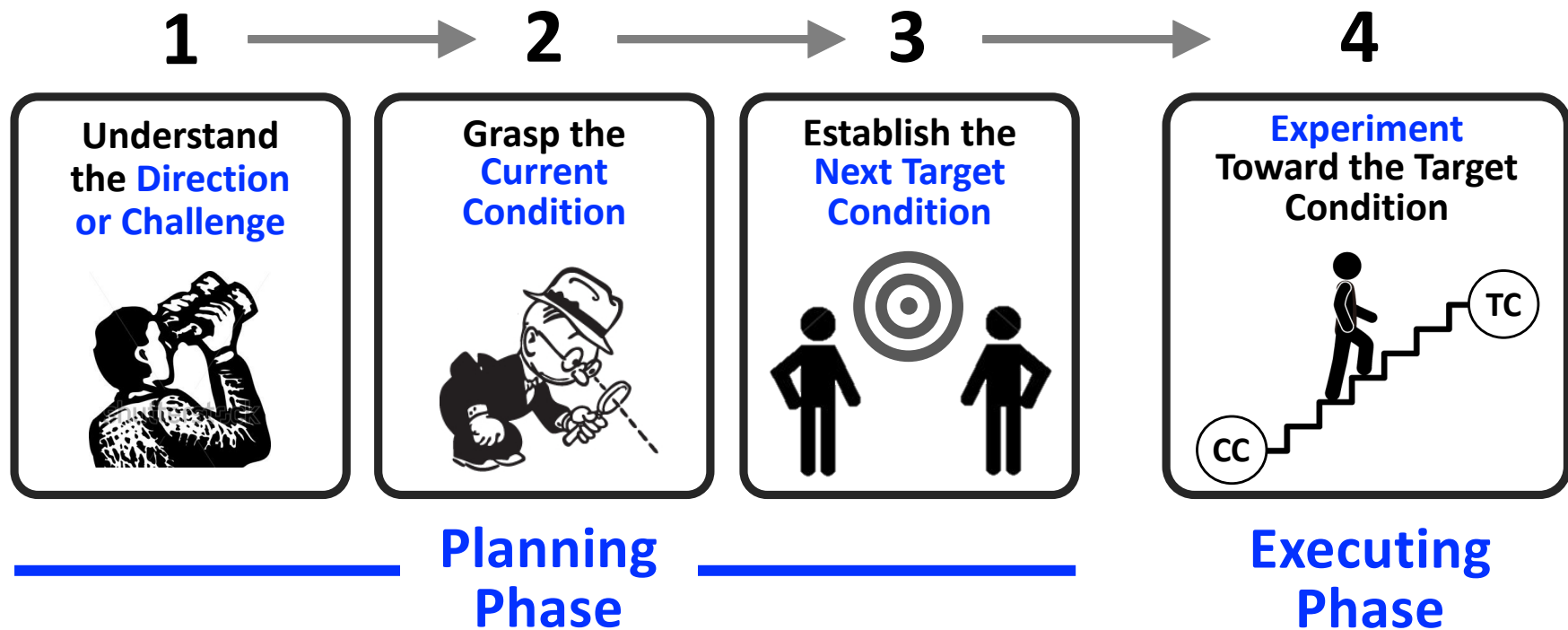
Developing People's
Improvement Skills

A consistent approach to making improvements unifies the organization's efforts

Method of talent development through problem solving

Kata – Based on Scientific Thinking

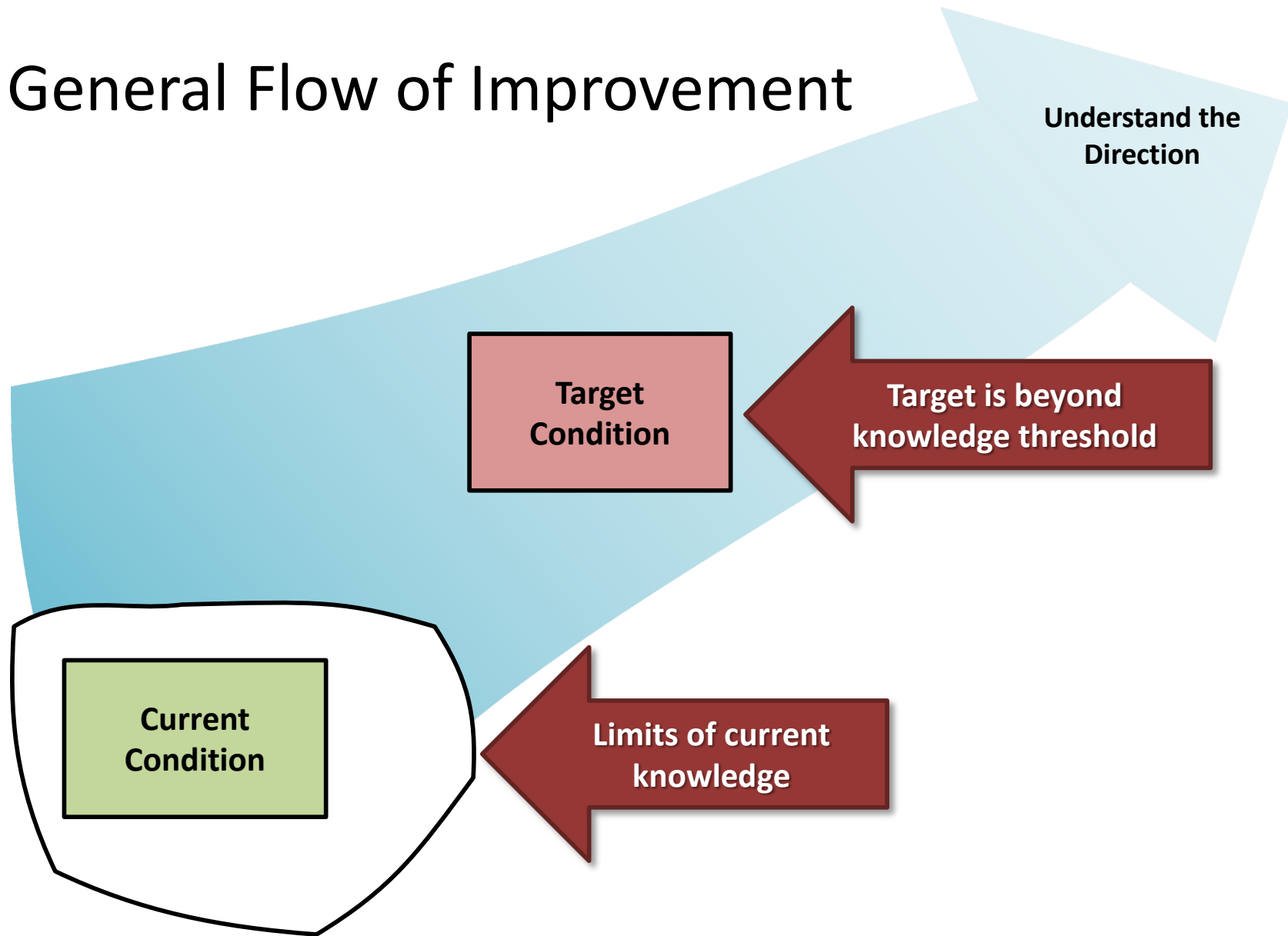
A systematic, scientific pattern of working



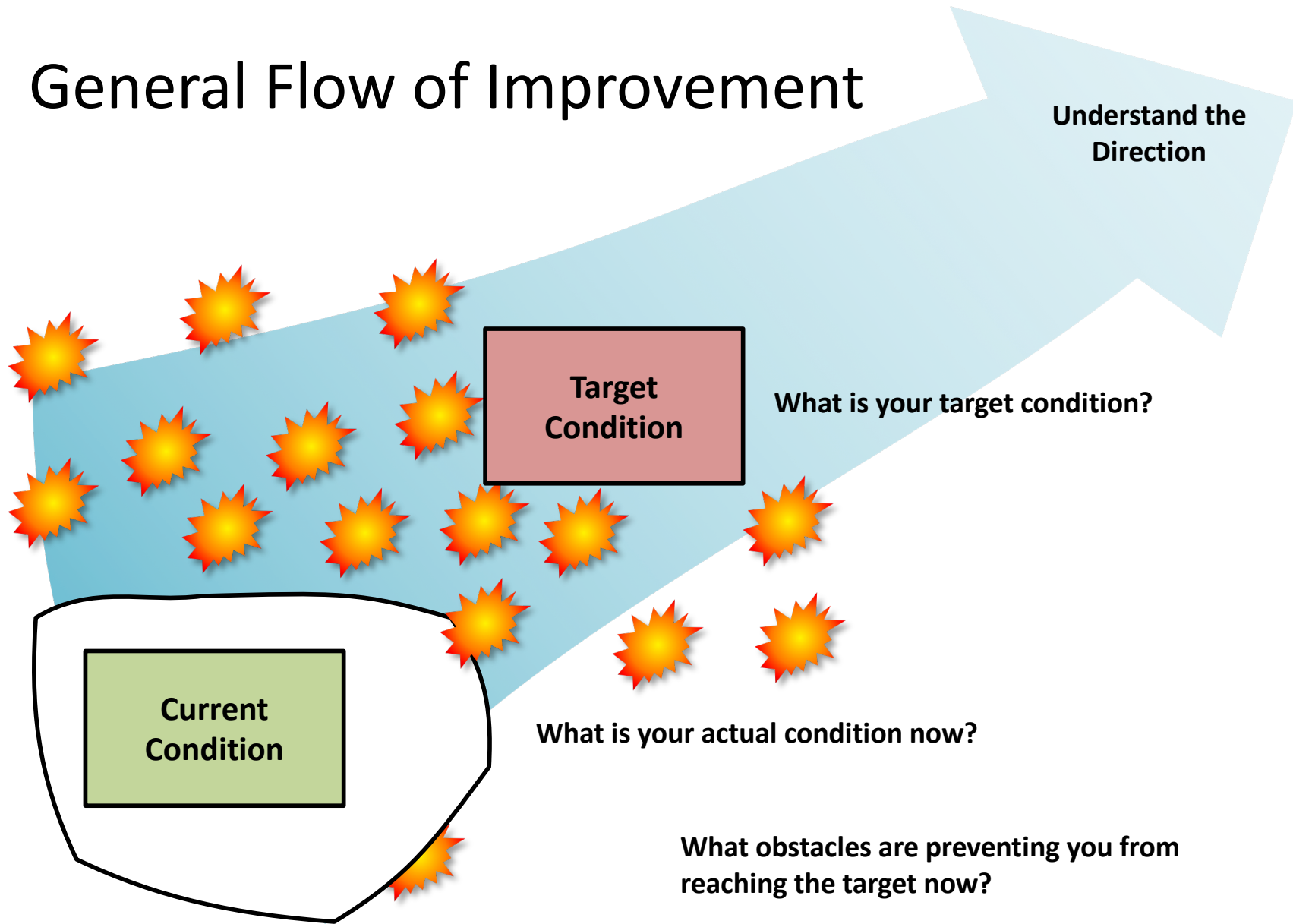
Kata – Rules

1. There is **no rank** among team members
2. Keep an open mind to change
3. Don't let “**perfect**” get in the way of “**better**”
4. Maintain a positive attitude
5. Reach for the mind before the wallet
6. **Respect each other**
7. Ask “why?”

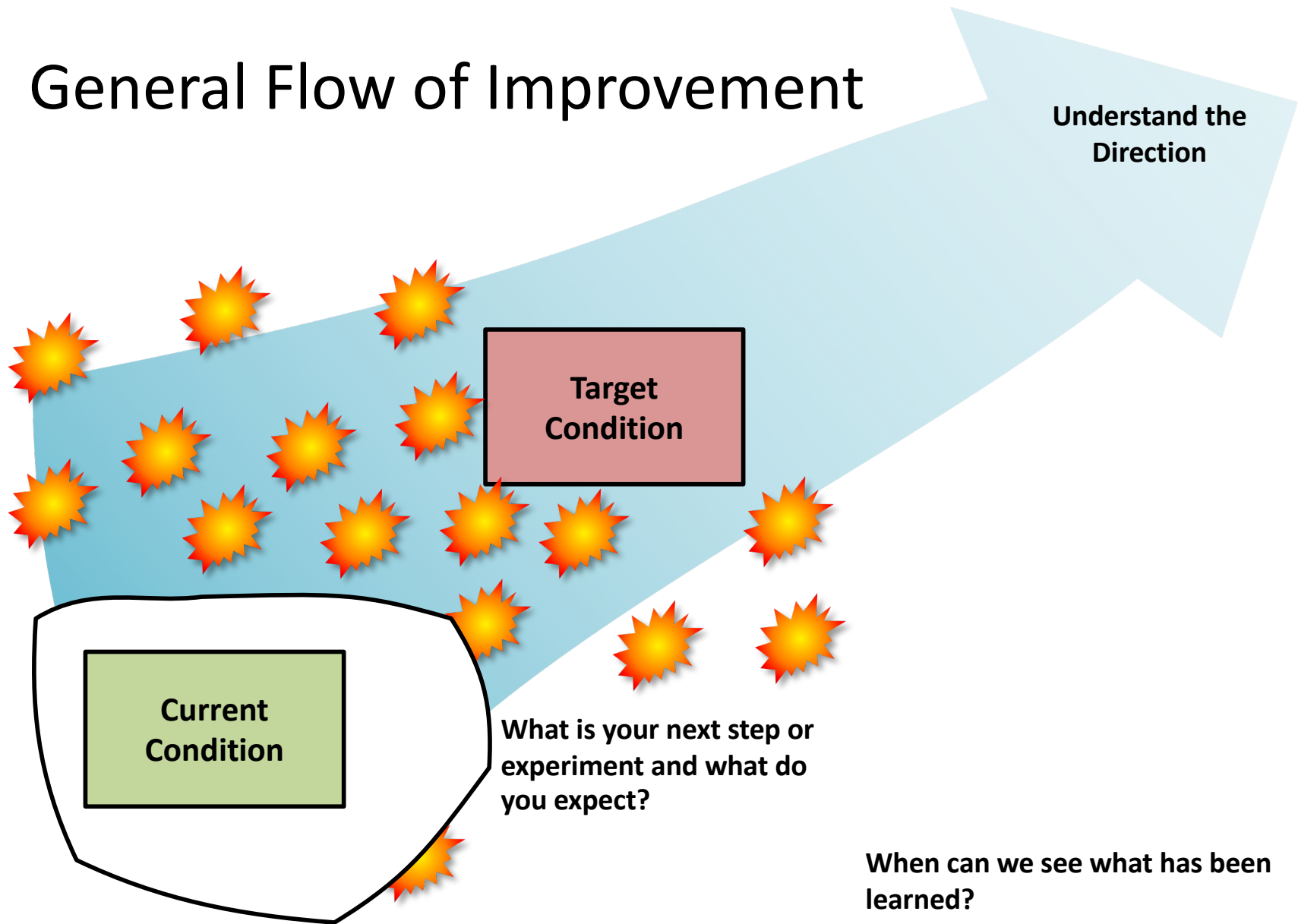
General Flow of Improvement



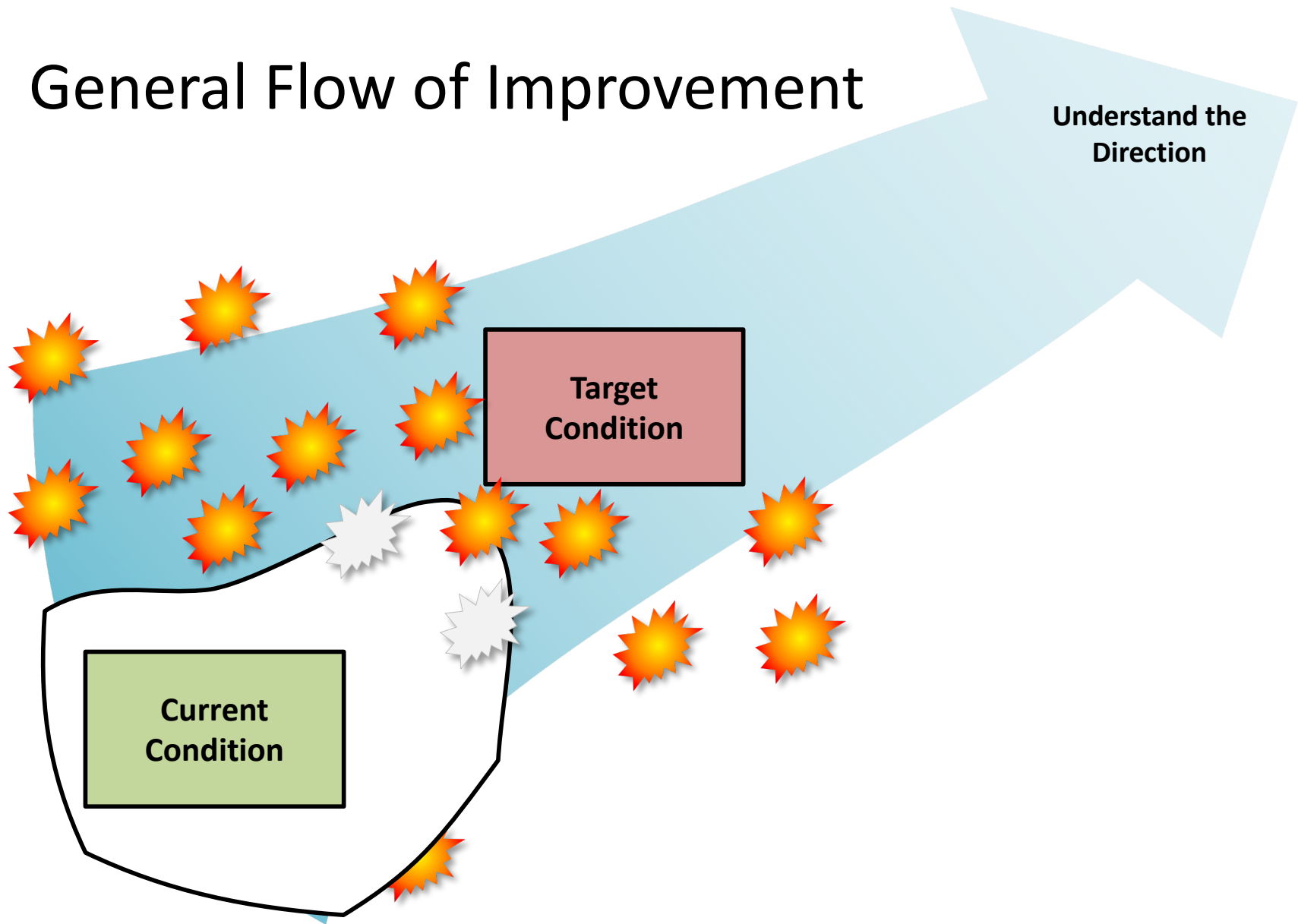
General Flow of Improvement



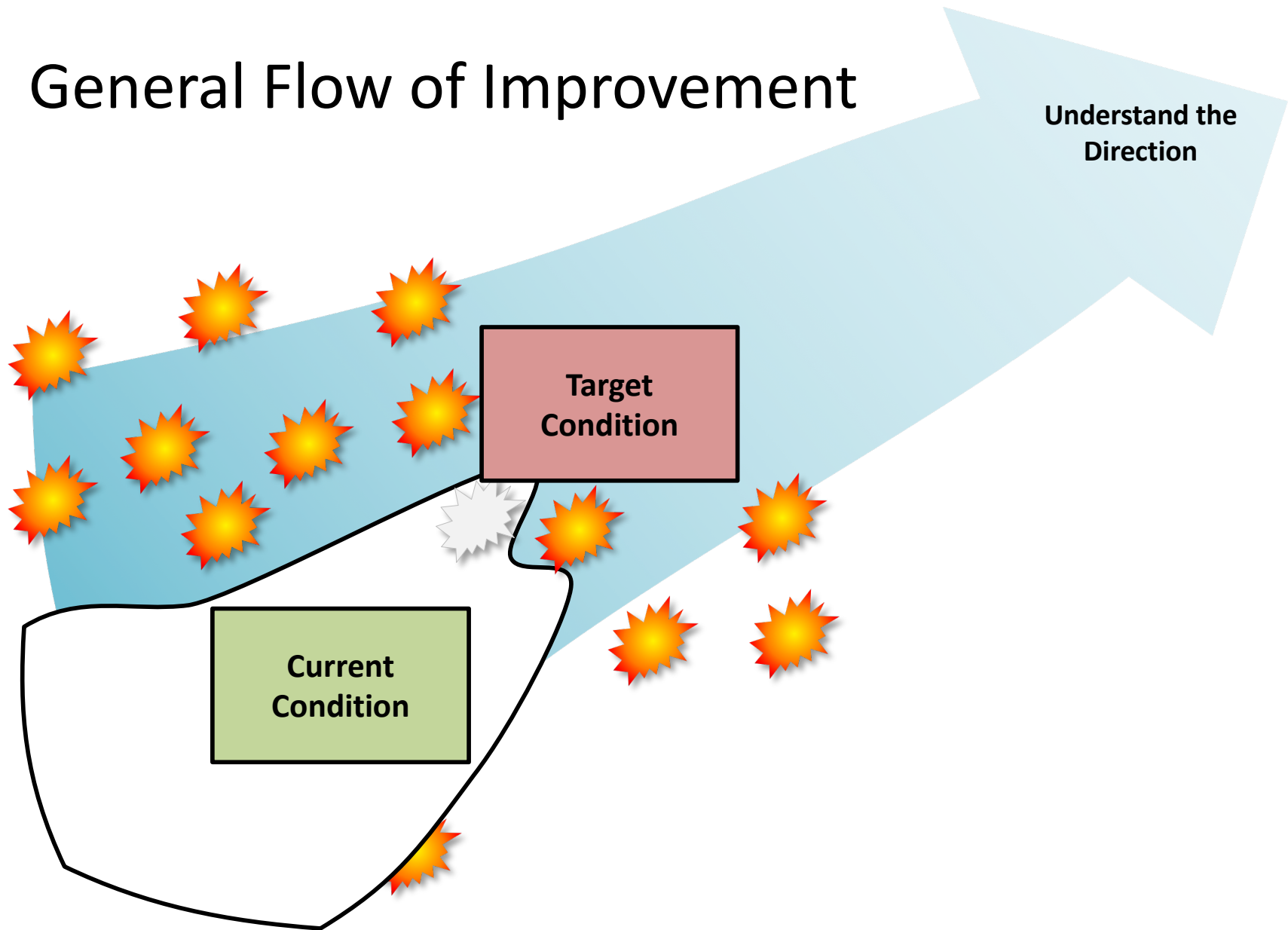
General Flow of Improvement



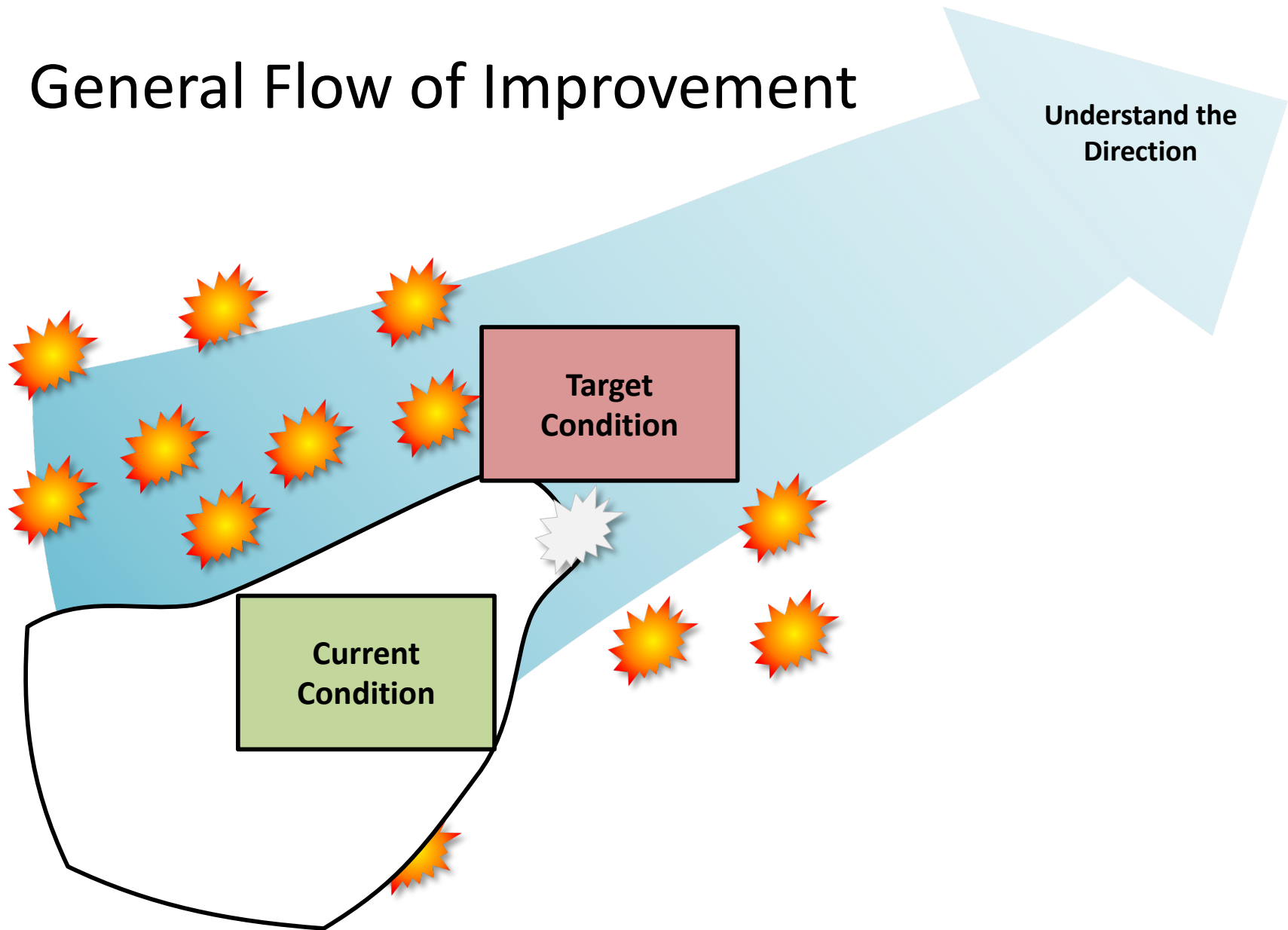
General Flow of Improvement



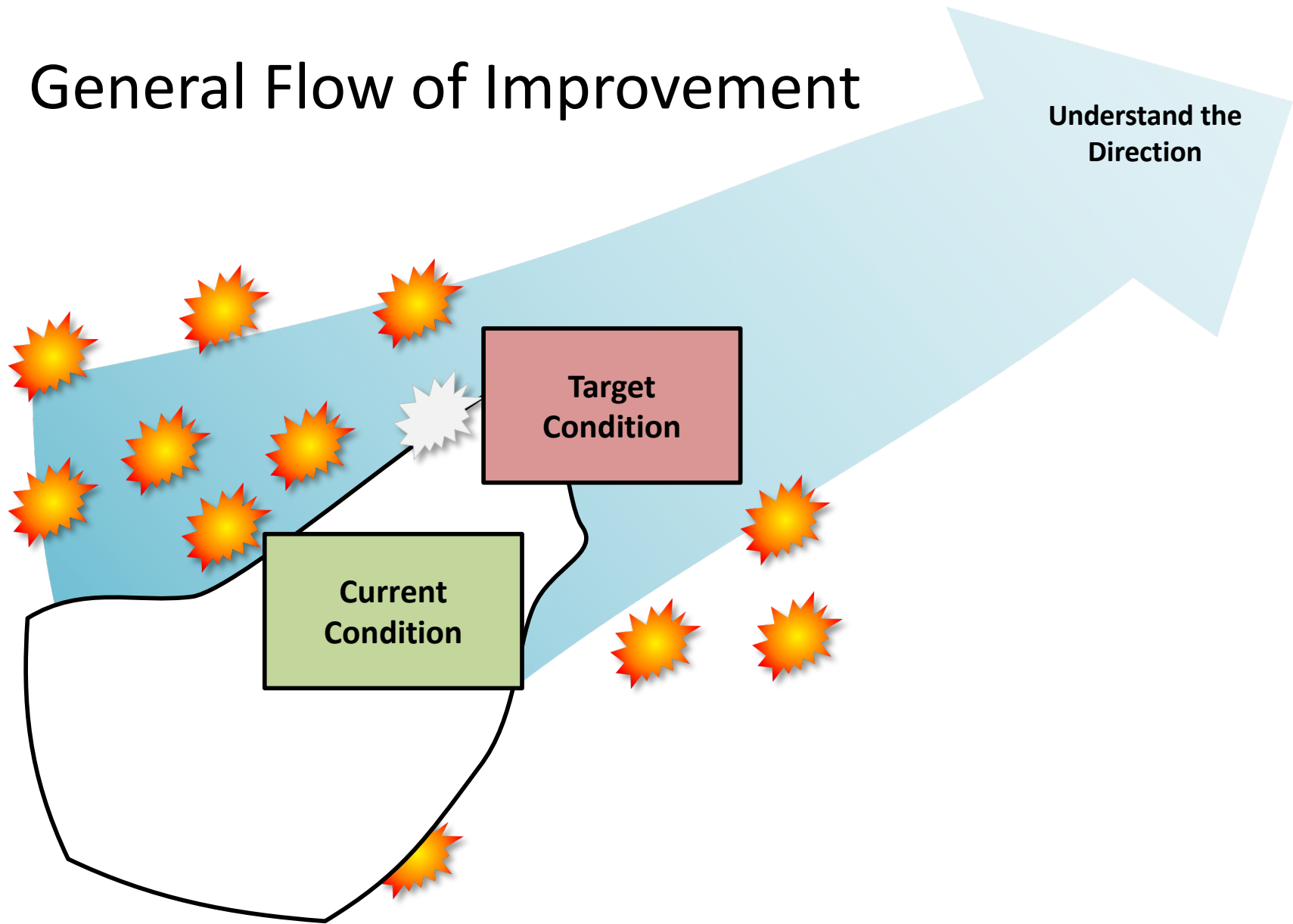
General Flow of Improvement



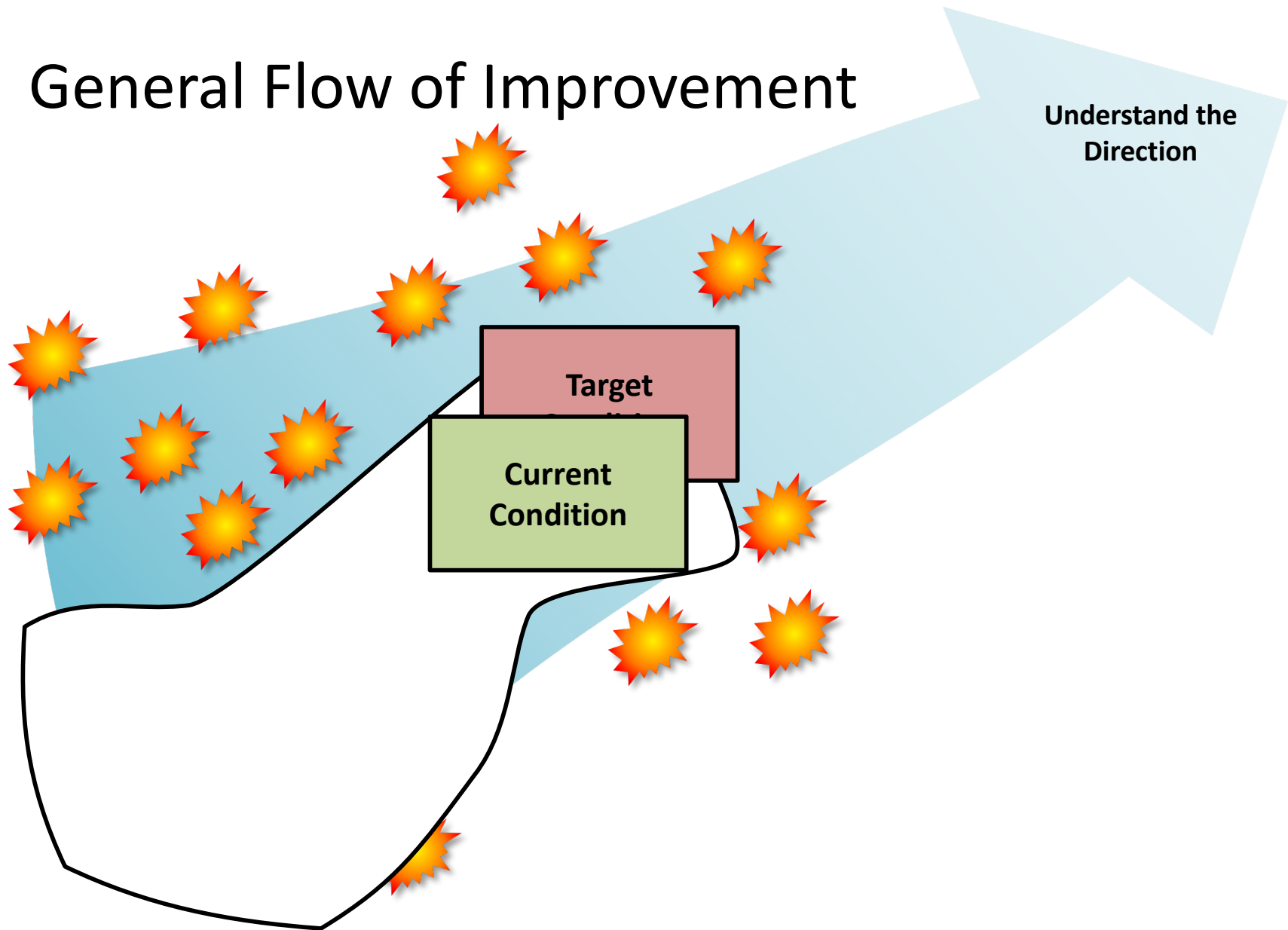
General Flow of Improvement



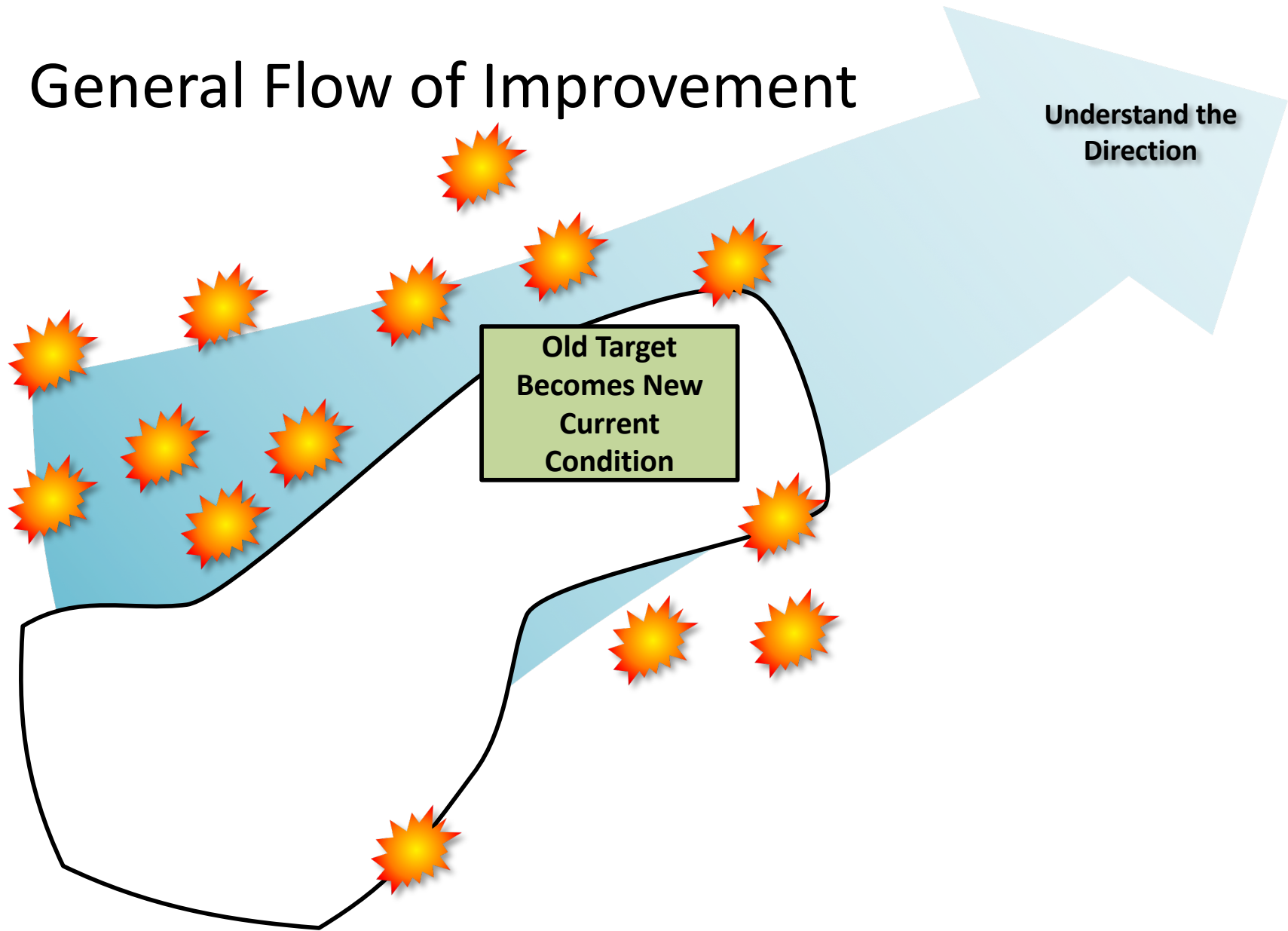
General Flow of Improvement



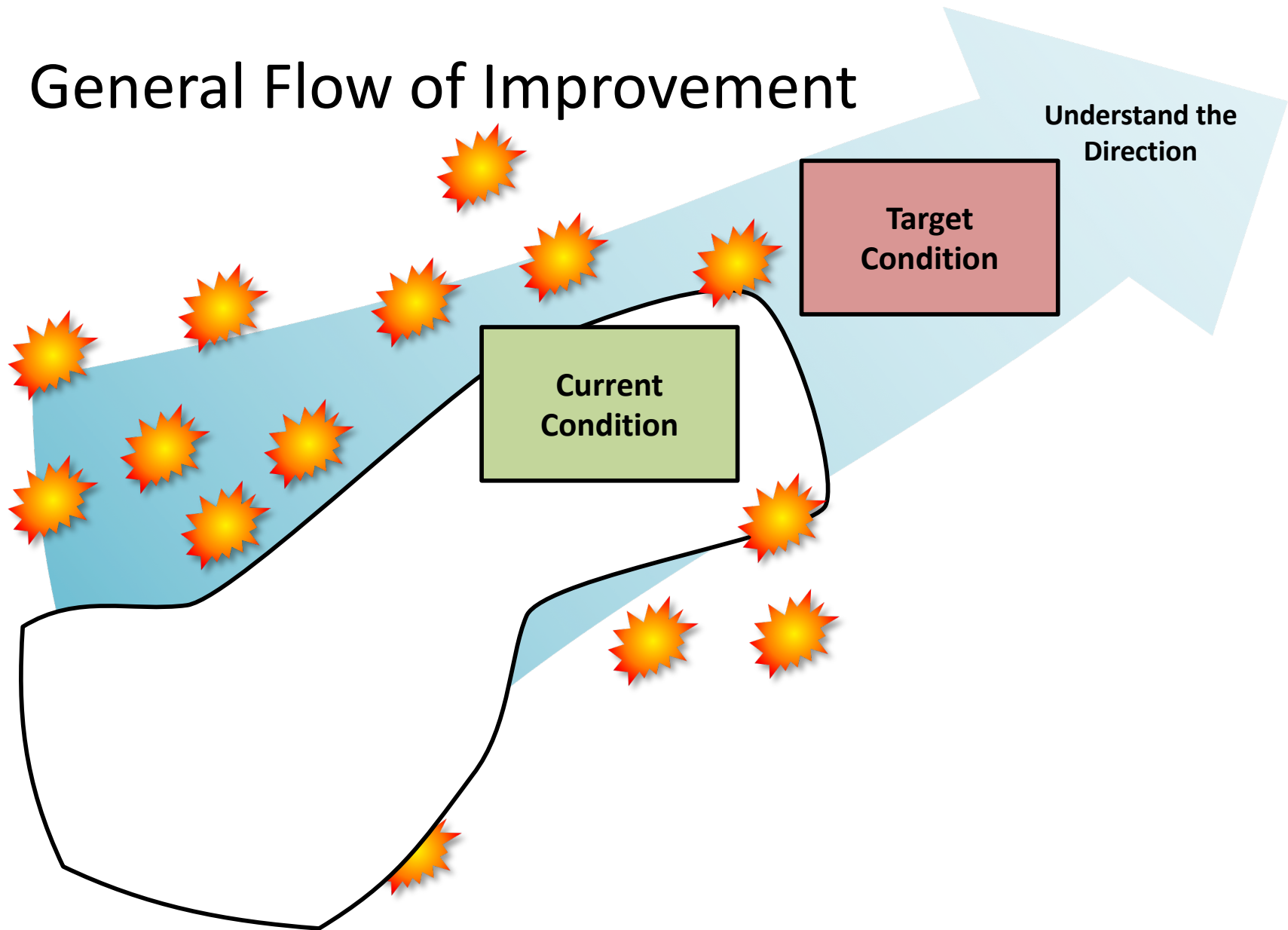
General Flow of Improvement



General Flow of Improvement



General Flow of Improvement

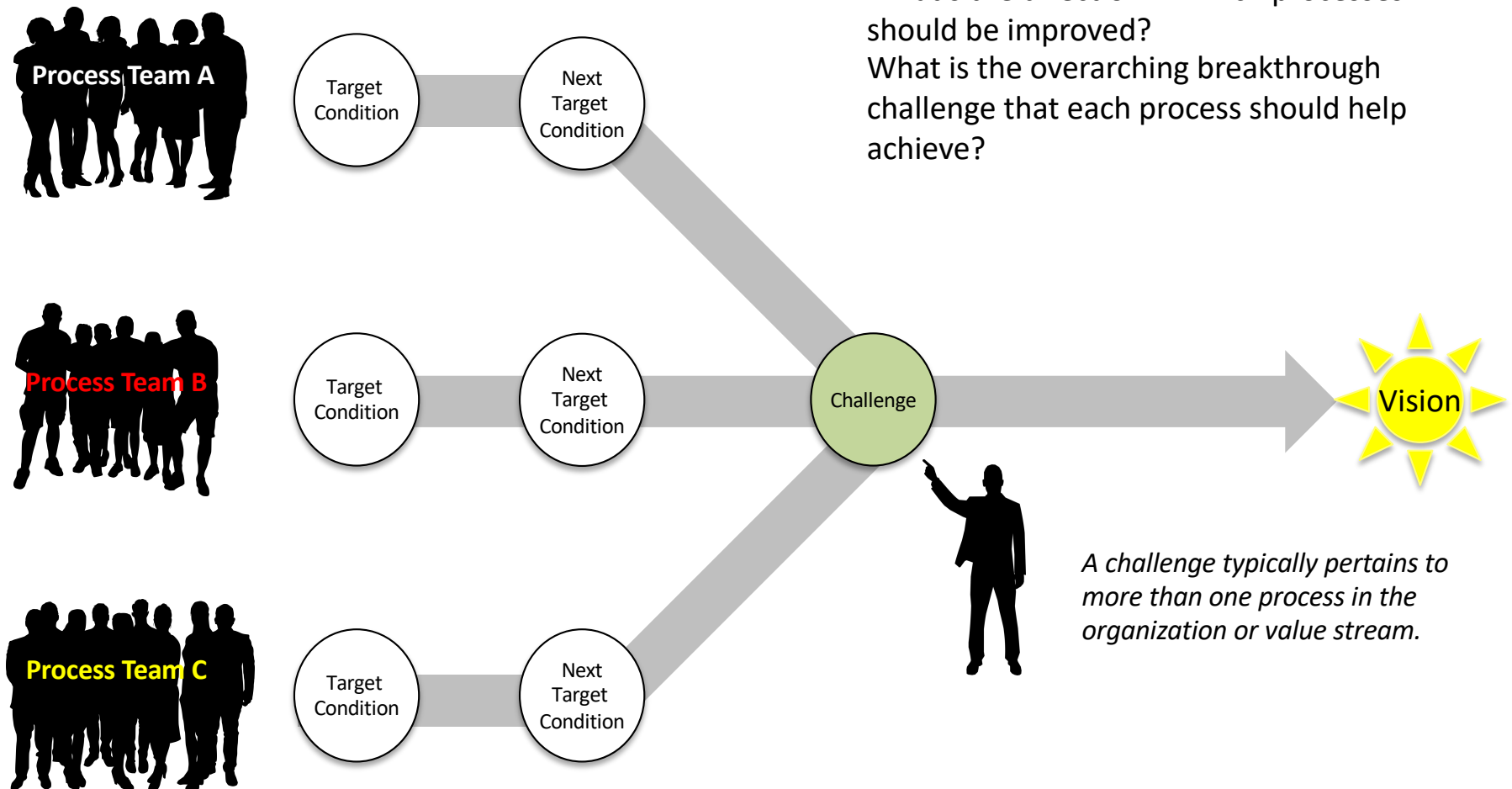


Setting Direction - The Challenge

Wouldn't it be great if we could...

- ...have every customer calling in immediately get a live person - *"Customer first time live"*
- ...machine parts 1x1 directly in the assembly process - *"Machine to assemble"*
- ...paint parts 1x1 directly in the assembly process - *"Paint to assemble"*
- ...build one customer kitchen at a time and put it right on the truck - *"Build to truck, kitchen at a time"*
- ...have lab-test results done in 45 minutes, with no errors - *"Know in 45"*
- ...take 7 days from new patient referral to evaluation - *"Just a week"*
- ...assemble the day ordered, and ship the next day - *"Same day, next day"*

The Challenge



The Target Condition

- Describes future state performance *and* process.
- Is not a solution or countermeasure, it is a description of a set of circumstances you want to reach by a specified date
- Your target condition should not be something you know how to do
- Ask yourself, if the problems were solved, what would my process look like?

A Target Condition IS NOT	Why
<p>Words like these shouldn't be in a target condition:</p> <p>"Minimize" "Reduce" "Improve" "Increase"</p>	<p>No verbs in a target condition! That's for how to get there, which comes later.</p> <p>A target condition describes a desired pattern at a future point in time, not actions. Transport yourself to the future state, the target condition as if you are already there</p>
<p>These are not a target condition:</p> <ul style="list-style-type: none"> ✓ <i>Apply 5S (Housekeeping & workplace organization)</i> ✓ <i>Install a barcode system</i> ✓ <i>Change the layout</i> 	<p>There are countermeasures, which should not be confused with a target condition. First describe how the process should operate. Countermeasures are then developed <i>as needed</i> as you strive to reach that target condition.</p>
<p>These kinds of statements alone ≠ a target condition:</p> <ul style="list-style-type: none"> • "A pull system" (kanban) • "Milk-run material delivery" 	<p>Not enough detail. A kanban or material delivery system can be a target condition, but you need to describe the pattern of how you want it to operate.</p>

The Target Condition

Without a clear target:

What should we do
to improve?

5S? Mistake-
Proofing? Changeover
Reduction?
Kanban? Moving
Lines? Visual
Controls?
Standard
Work?

With a clear target:

What is keeping us
from hitting the
target?

Errors Shortages?
Searching? Variation?
Ambiguity? Changeovers?

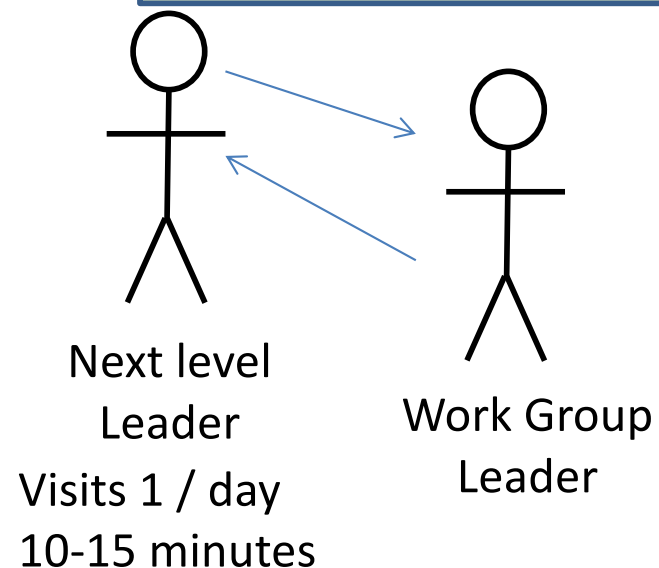
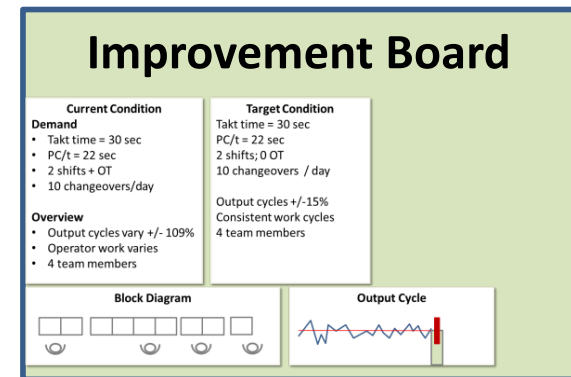
The discussion becomes:

What is the best way
to solve these
problems?

Which leads us to the appropriate *countermeasures*.

Coaching Cycle: 10-15 minutes / day

1. What is your target condition?
2. What is the actual condition now?
3. What obstacles are preventing you from reaching the target condition?
4. What is your next step? (start of PDCA cycle)
5. When can we go see what you have learned?



Set up *one* experiment!