

PART II: Practice Routines for The Improvement Kata

Deliberate practice of the Improvement Kata pattern has the ability to change how we think about and deal with challenges and uncertainty. This section of the Handbook walks you step-by-step through the practice routines for each step of the Improvement Kata.

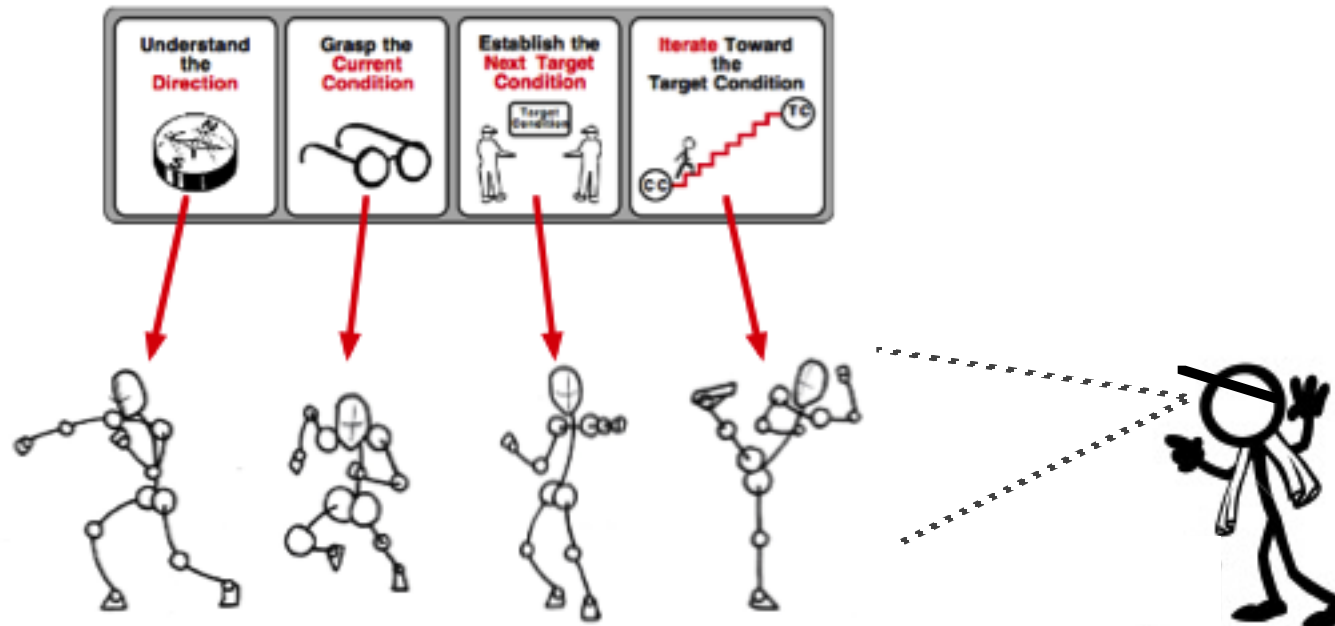
Each Chapter in this section has two parts: a ‘Concept Overview’ and ‘Practice Routines,’ indicated by these icons:



WHAT PART II IS ABOUT

The practice routines in this part of the Handbook are used to learn the scientific thinking pattern of the Improvement Kata. The practice routines in Part III are used to learn how to teach the Improvement Kata pattern.

The IMPROVEMENT KATA PATTERN (the scientific approach)



These are specific PRACTICE ROUTINES to acquire / develop the scientific pattern of thinking and acting

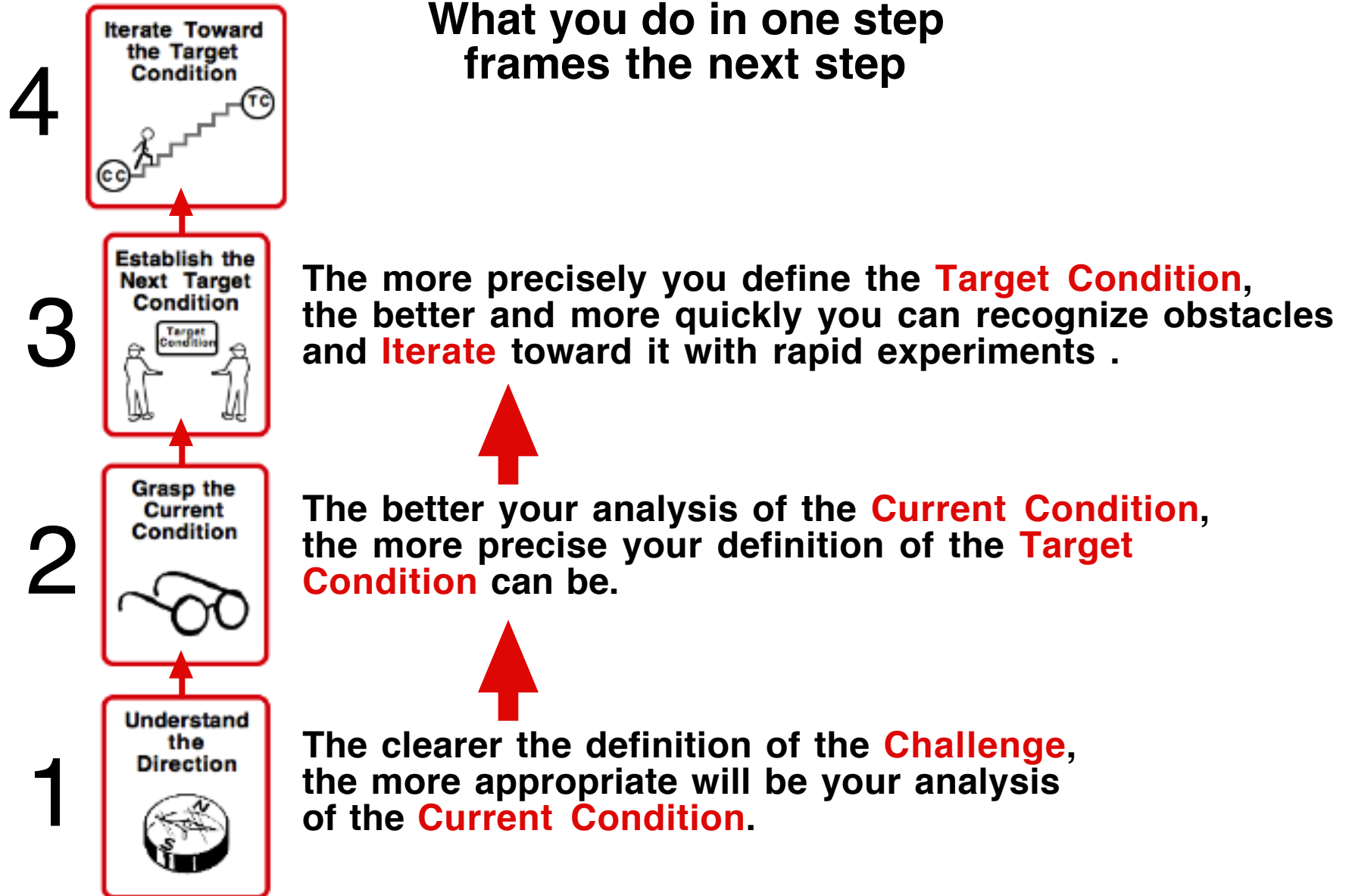
(HANDBOOK PART II)

The COACHING KATA is a practice routine for learning how to teach the Improvement Kata pattern

(HANDBOOK PART III)

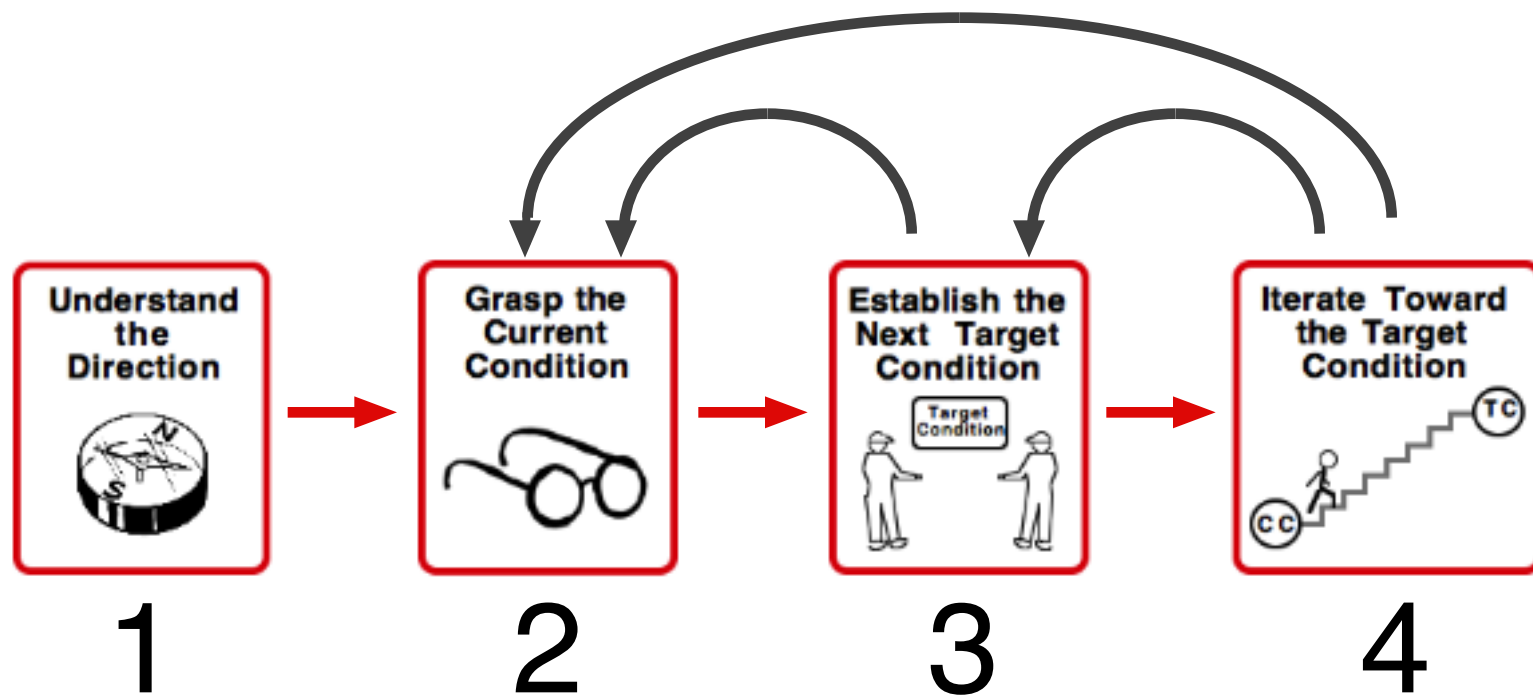
THE STEPS OF THE IMPROVEMENT KATA BUILD ON ONE ANOTHER

What you do in one step
frames the next step



THE STEPS OF THE IMPROVEMENT KATA ARE ALSO RECURSIVE

What you encounter in one step
may adjust what you learned in earlier steps



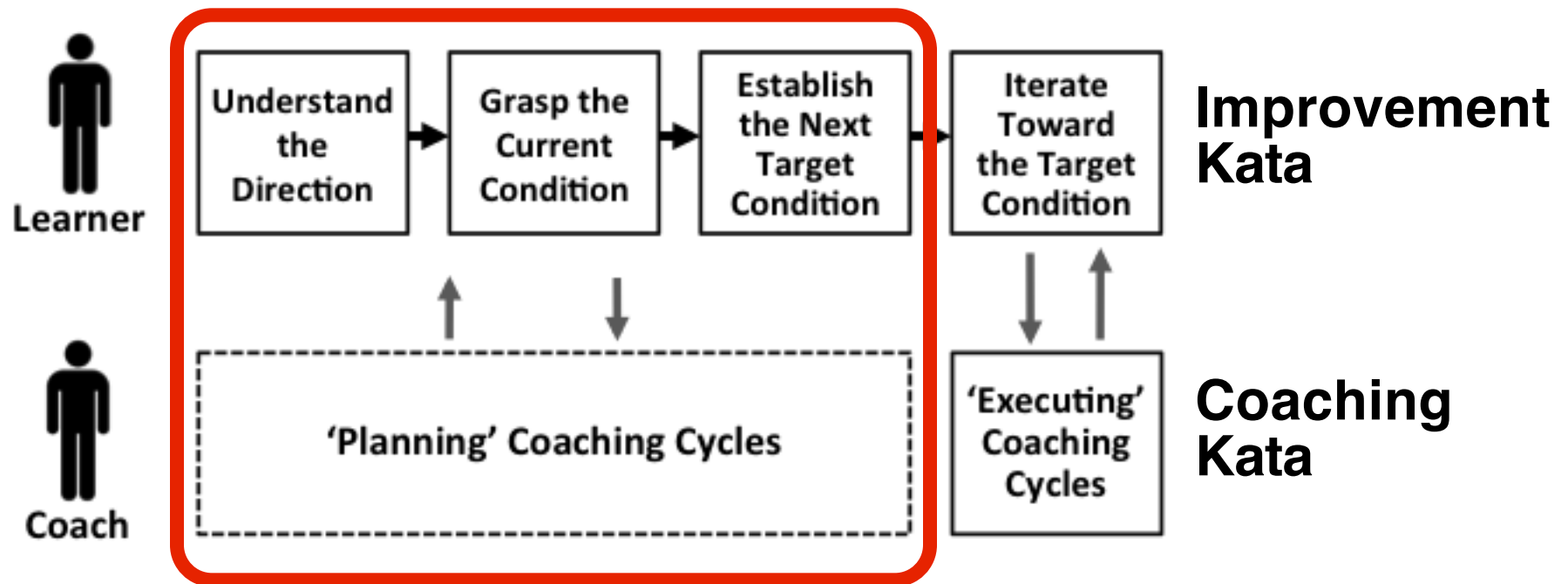
PLANNING PHASE

Where Do We Want to Go?

Chapter 4. Step 1: Understand the Direction / Challenge

Chapter 5. Step 2: Grasp the Current Condition

Chapter 6. Step 3: Establish the Next Target Condition

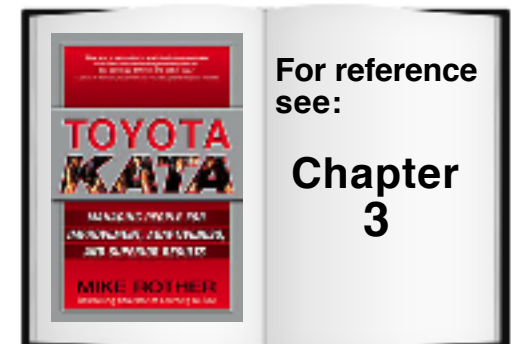


Chapter 4

The Improvement Kata - Planning Phase

Step 1: UNDERSTAND THE DIRECTION / CHALLENGE

**Practice
this
Routine**



For reference
see:

**Chapter
3**

ORIENTATION

 **YOU are here**



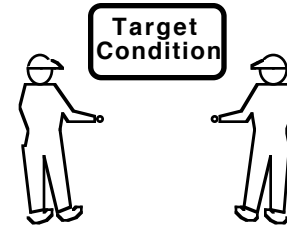
Understand the Direction



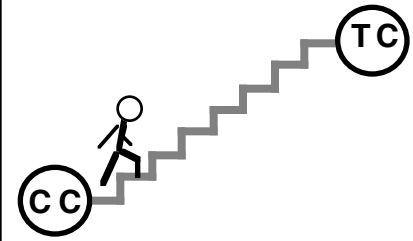
Grasp the Current Condition



Establish the Next Target Condition



Iterate Toward the Target Condition

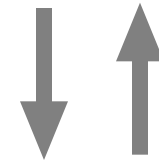
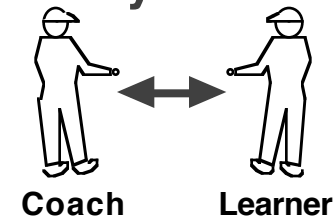


What 1-3 year Challenge are we striving to meet?



‘Planning’ Coaching Cycles

‘Executing’ Coaching Cycles



LEARNER'S STORYBOARD

Learner and Coach are now concentrating on this field **X**

Focus Process:		Challenge: X
Target Condition Achieve by: _____	Current Condition	PDCA Cycles Record
		Obstacles Parking Lot



Concept Overview



STRATEGY BEFORE GOALS

The Improvement Kata pattern begins with a sense of strategic direction

You Are Here



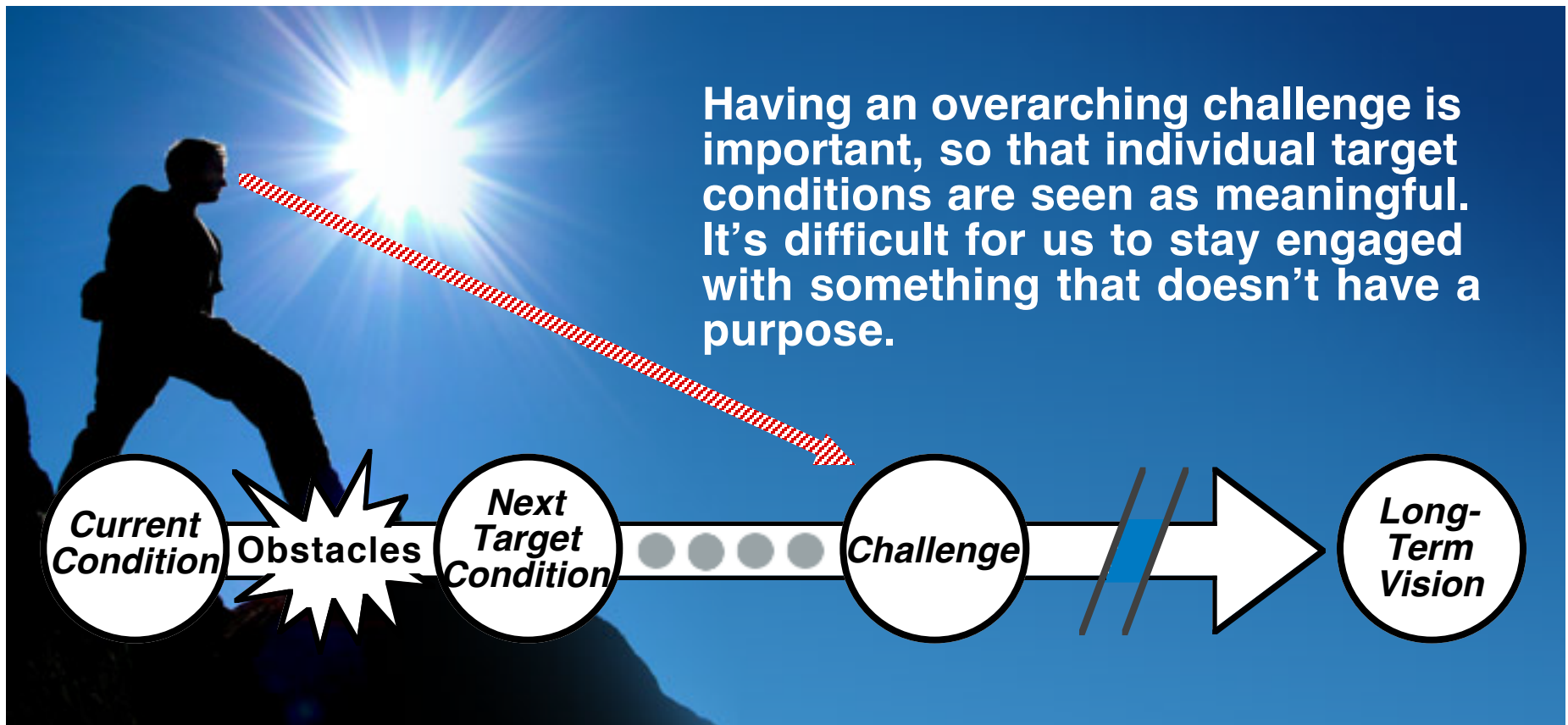
Breakthrough Challenge
related to better serving
the customer



Based on a graphic by Bill Costantino

SPECIFICALLY, THE FIRST STEP OF THE IK PATTERN IS TO HAVE AN OVERARCHING **CHALLENGE**

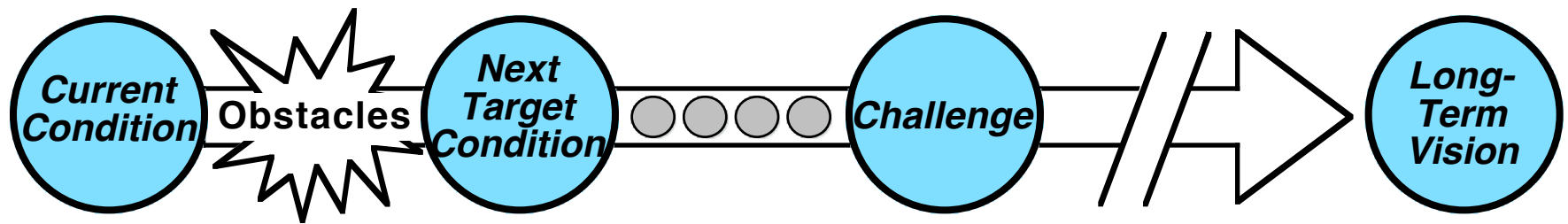
This is the context within which the rest of the Improvement Kata is applied



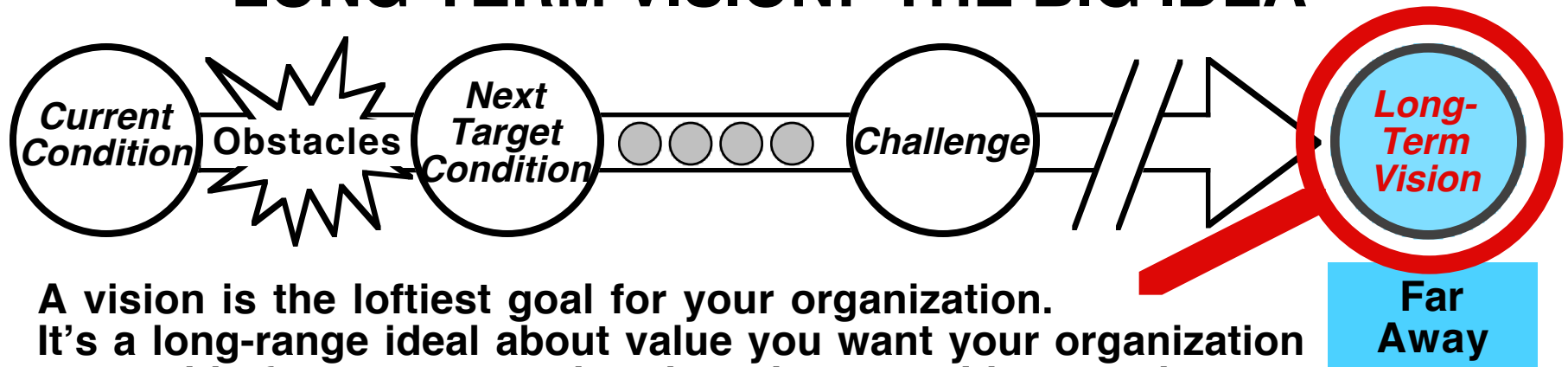
“When people see themselves as components in a system [and] work in cooperation to achieve a shared aim, they feel that their efforts hold meaning. They experience interest and challenge and joy in the work.”

~ W. Edwards Deming, The New Economics, page 128

LET'S LOOK AT EACH OF THESE ELEMENTS

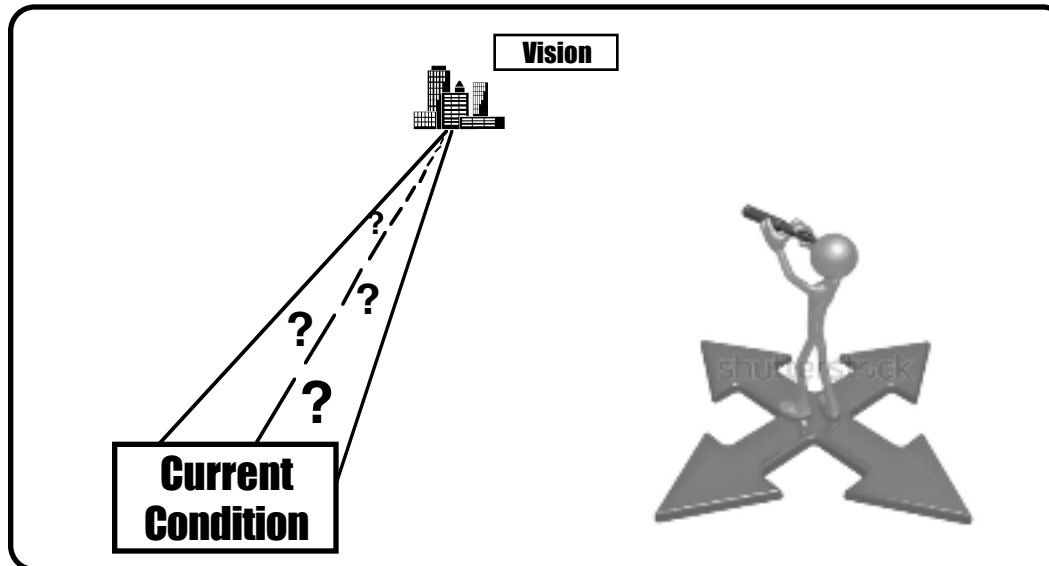


LONG-TERM VISION: THE BIG IDEA



A vision is the loftiest goal for your organization. It's a long-range ideal about value you want your organization to provide for customers, in a broad sense. It's your dream. For example, a long-term vision for an automobile company might be, *"Better transportation for more people."* A vision for a maker of drills could be, *"Holes where you want them when you want them."*

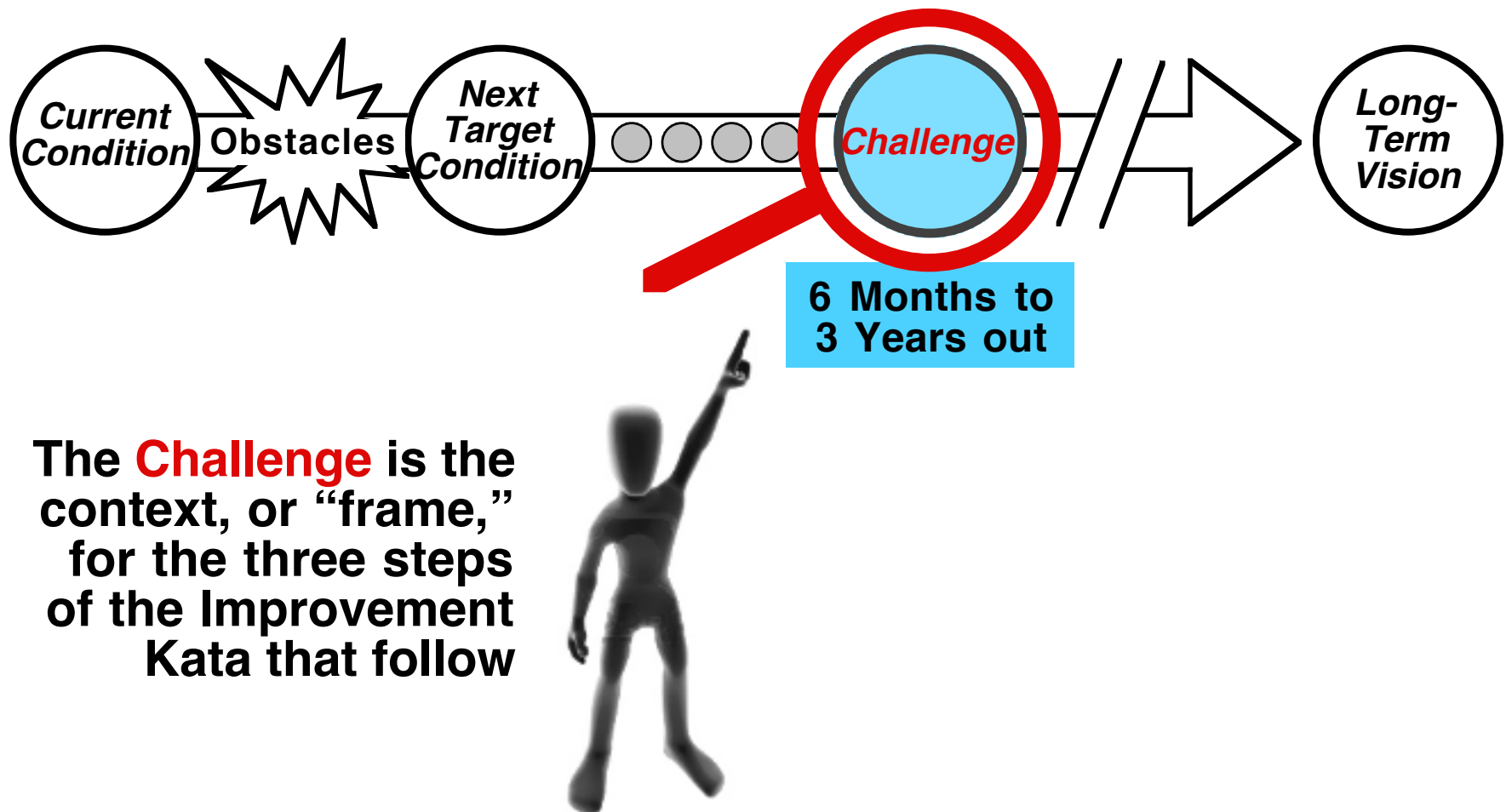
A vision is a puzzle from the perspective of current competencies. It's far away, difficult to imagine and the path to it is not foreseeable.



But a vision is not a good guide for daily improvement efforts.

It's too vague and too far away.

THE MOST IMPORTANT DIRECTION GIVER IN AN ORGANIZATION IS A CLOSER, MORE SPECIFIC, WELL-STATED STRATEGIC CHALLENGE





WHAT IS AN OVERALL CHALLENGE?

**A challenge is a description of success
1-3 years in the future**

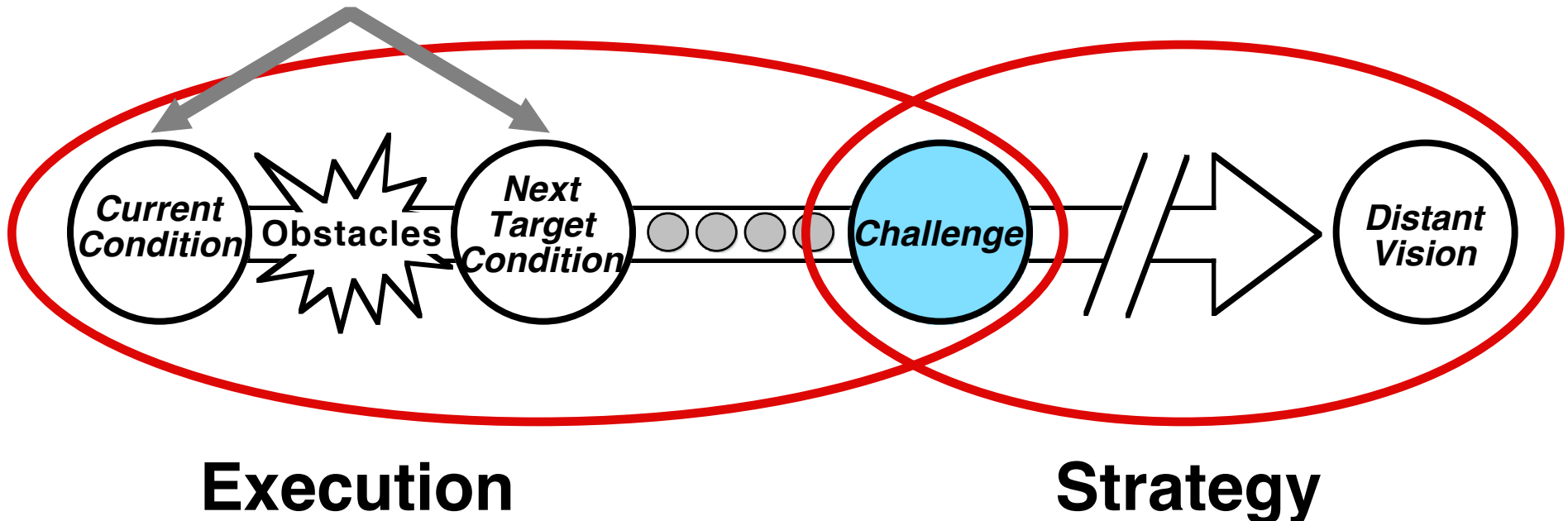
- A challenge is a new condition that you envision, which will cause you to stretch and grow. As you try to describe your challenge, think of the words: *“Wouldn’t it be great if we could...”*
- In business organizations it’s a description of a new level or pattern of performance related to better serving the customer, which will differentiate your offering from other offerings.
- It’s something you can’t achieve using the current system or process.
- A challenge is typically **6 months to 3 years in the future**. It cannot be reached quickly in a few steps.
- Not easy, but not impossible. Achievable, but we don’t know in advance how we’ll achieve it. Takes a series of target conditions to achieve.
- Does not state how to get there or present a value judgement.

THE ROLE OF CHALLENGE IN AN ORGANIZATION

An overall Challenge is a theme that helps connect strategy with execution

Managers develop people by coaching application practice of the Improvement Kata in the direction of the challenge

Leaders establish the organization's strategic concept (the "rallying point" or overall direction)



WHY AN OVERARCHING CHALLENGE IS SO IMPORTANT

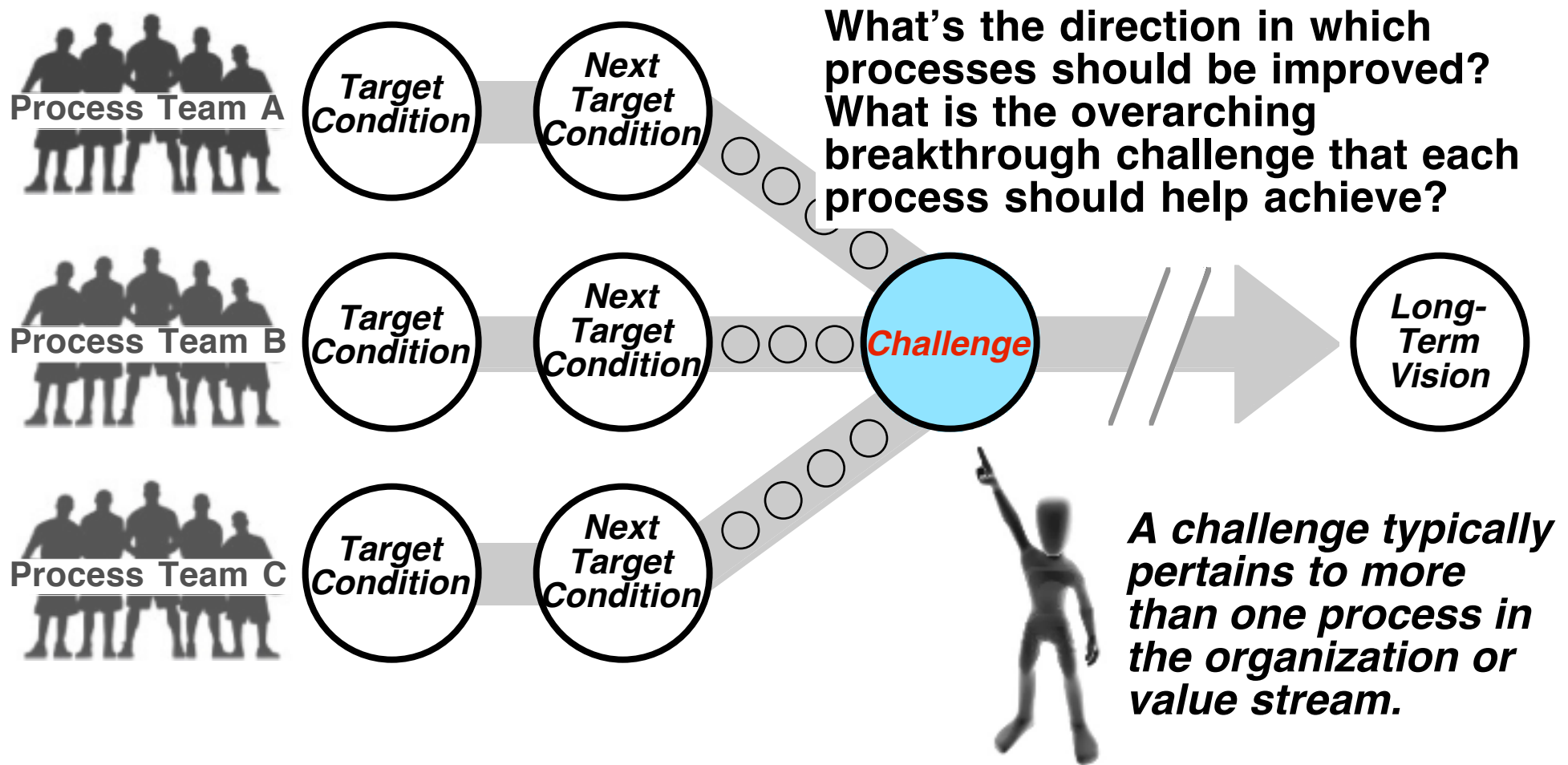
**The overall challenge guides every day's work.
Without it:**

- **An organization is unaligned. Improvement efforts and proposals get ROI-evaluated independently, instead of as part of reaching for something. We tend to use short-term cost/benefit analysis to choose what steps to take, which dangerously keeps us inside our current knowledge threshold.**
- **We tend to jump from one direction to another in trying avoid obstacles, rather than struggling through the obstacles to achieve the innovations and important competencies of tomorrow.**
- **Improvement becomes reacting to problems (“troubleshooting” to maintain the status quo) rather than reaching for a new level of performance and the future of our choosing.**

Without an overarching challenge teams can get dragged down by problems. With a challenge we can develop a higher energy level.

AN OVERALL CHALLENGE HELPS TO ALIGN AND CONNECT INDIVIDUAL IMPROVEMENT EFFORTS

The overall challenge is used to help ensure that process-level improvement efforts have a focus and fit together



A black silhouette of a person in a dynamic, athletic pose, possibly a martial arts stance. The person's arms are extended outwards and slightly downwards, and their legs are spread apart in a wide stance. The silhouette is centered in the upper half of the slide.

Practice Routines

CHALLENGE-DEVELOPMENT QUESTIONS

A basic question to ask yourself is:
“Wouldn’t it be great if we could _____!”

1. What is the distant, very long-term **vision** for our organization? What challenge will now help us move in that direction?
2. What do our **customers** value that they are not currently getting from us?
3. What special product or service **capability** do we want to develop?
4. What **changes** are happening in our environment that could make our current capabilities less special?
5. What does **success three years from now** look like?

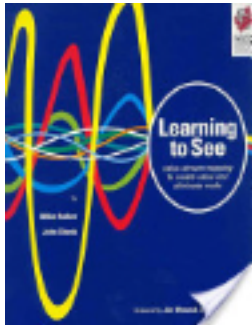
Note:
***EFFICIENCY AND COST CUTTING
ALONE ARE NOT A DIRECTION***

Just pursuing low cost is unlikely to be a source of sustained competitive advantage. This can lead you into a commodity trap, where in order to compete you end up pursuing ever-lower-cost inputs and endanger quality. It can easily lead to a static and vulnerable organization.

Rather than managing the operational side of the business simply to be efficient, with the Improvement Kata approach managers guide activities that support a strategic purpose that grows and differentiates the business (which can include efficiency, of course). Strive to better serve customers and distinguish your organization from competitors. Cutting cost and improving efficiency can be done *as necessary* to achieve this.

Defining a vision or strategic purpose is about building unique value; i.e., distinctive differences that are valuable to customers. This provides qualitative directional guidance for the organization.

YOU CAN ESTABLISH OVERALL CHALLENGE THROUGH A FUTURE-STATE VS MAP



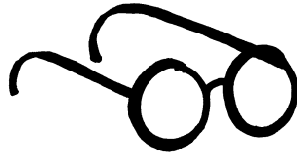
Future-State Mapping at the product-family level can provide the necessary sense of direction and challenge for the IK pattern.

A future-state Value Stream map is sometimes even called a *Challenge Map*.

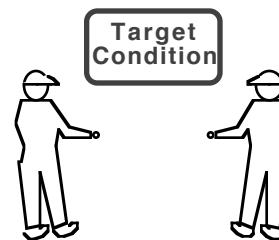
**Understand
the
Direction**



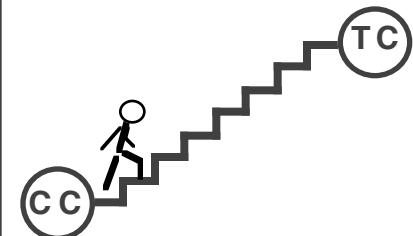
**Grasp the
Current
Condition**



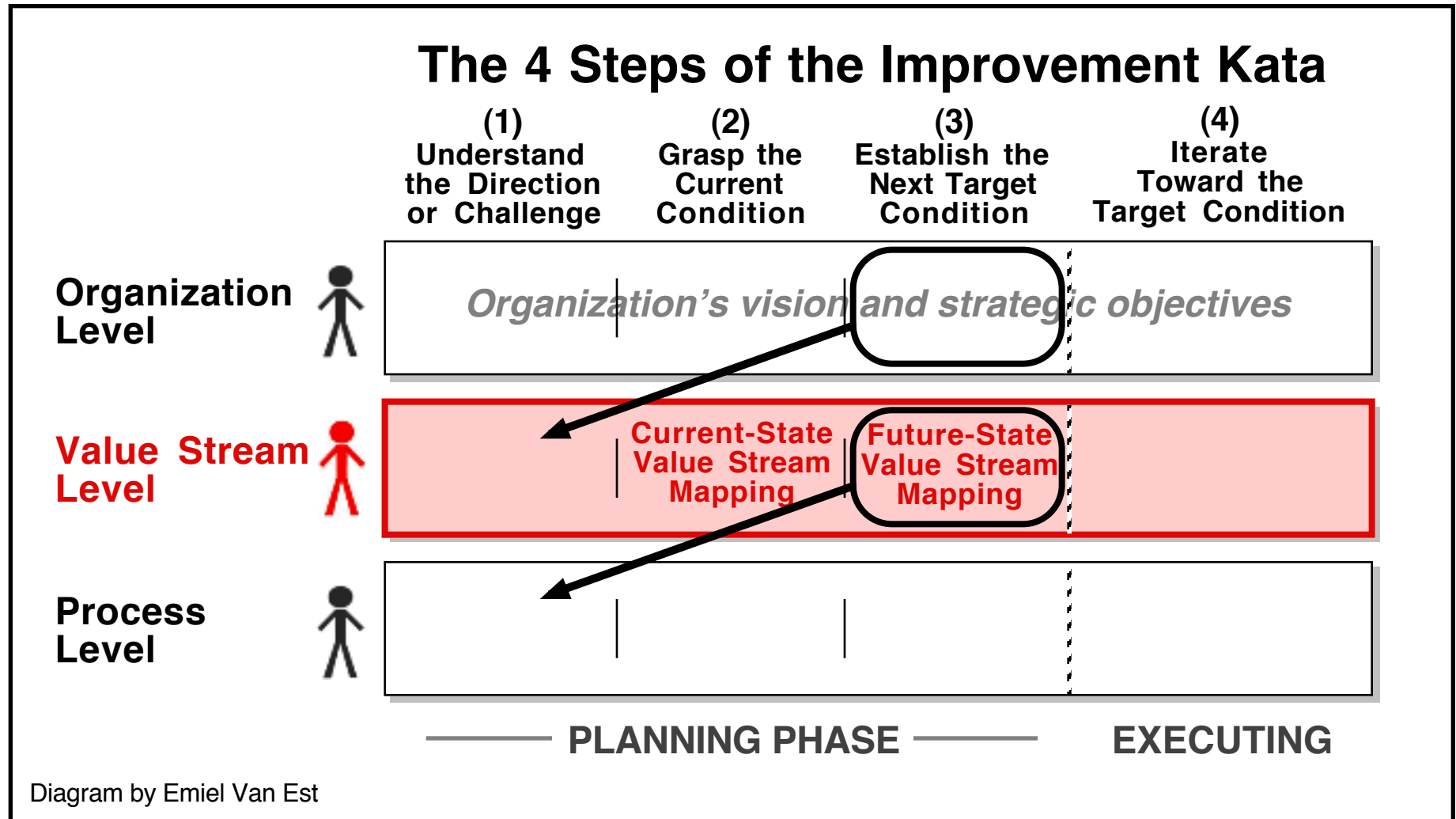
**Establish the
Next Target
Condition**



**Iterate Toward the
Target Condition**



WHERE VALUE STREAM MAPPING FITS IN

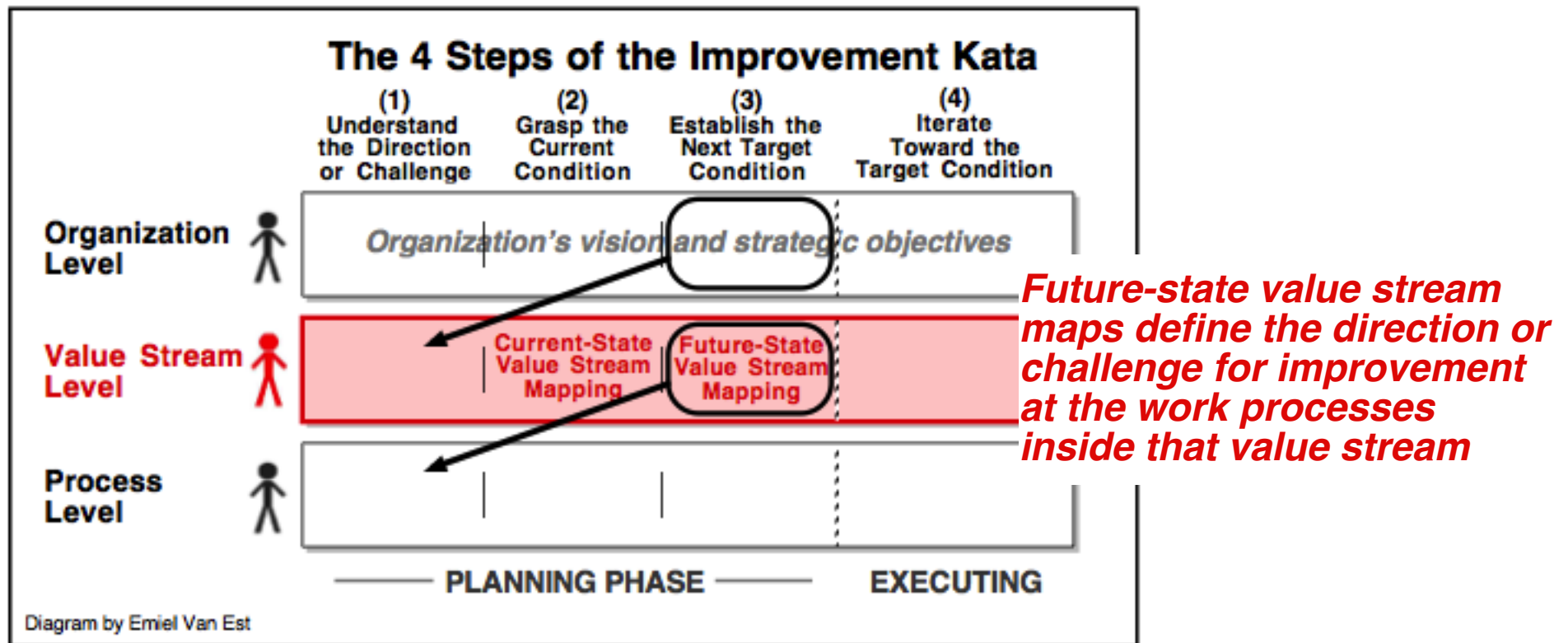


HOW IT WORKS

The diagram on the previous page & below depicts how the four steps of the Improvement Kata pattern are utilized at each level of an organization. The diagonal arrows show how the *Target Condition* at one level becomes the *Direction or Challenge* for the next level down.

At the value-stream level, current-state value stream mapping is used for the Kata step of grasping the current condition, and future-state mapping is used for the Kata step of establishing the Target Condition.

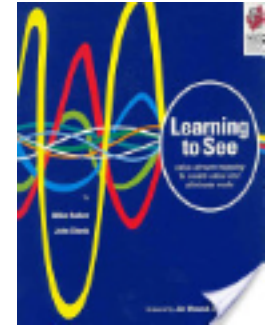
VSM is then often also used to assess and design value stream loops.



A FUTURE-STATE VALUE STREAM MAP COORDINATES IMPROVEMENT EFFORTS

A future-state map describes in a graphic format how you want a value stream to be functioning in 1-3 years.

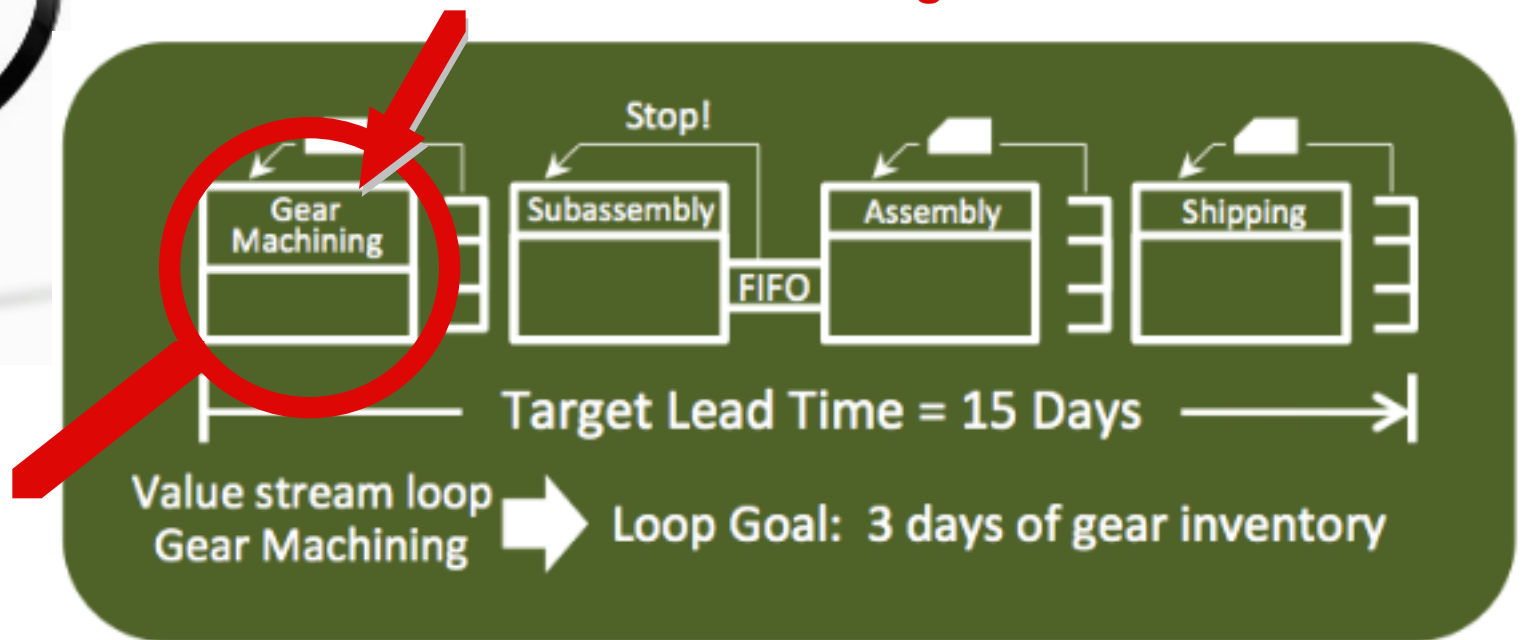
The future-state value stream map provides an overarching challenge & coordination for establishing target conditions at the individual loops and processes inside a value stream.



See p.86 in
Learning to See



What do the processes inside this VS loop need to work on, to help achieve the future-state *value stream* design?



ONCE YOUR FUTURE-STATE MAP IS DRAWN, WRITE THE OVERALL CHALLENGE AS A *STATEMENT*

The overall challenge should describe a desired state that people can relate to and rally around, that is measureable in some aspect. But the challenge is not just a number. It should be personally relevant to the members of the organization. A good challenge focuses a team's attention and effort and is often published as a compact, inspiring *challenge statement*.

Example Challenges <i>Wouldn't it be great if we could...</i>	Example Challenge Statement
<ul style="list-style-type: none">• ...machine parts 1x1 directly in the assembly process.• ...paint parts 1x1 directly in the assembly process.• ...build one customer kitchen at a time and put it right on the truck.• ...have lab-test results done in 45 minutes, with no errors.• ...take 7 days from new patient referral to evaluation.• ...assemble the day ordered, and ship the next day.	<p><i>"Machine to assemble"</i></p> <p><i>"Paint to assemble"</i></p> <p><i>"Build to truck, kitchen at a time"</i></p> <p><i>"Know in 45"</i></p> <p><i>"Just a week"</i></p> <p><i>"Same day, next day"</i></p>

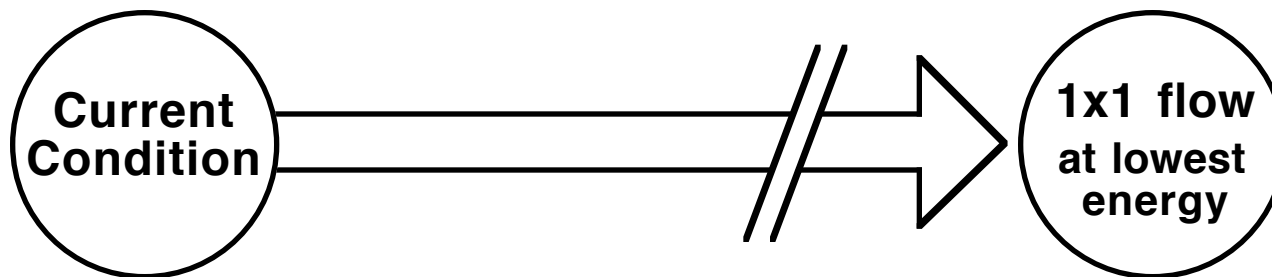
IS THERE A COMMON, UNIVERSAL CHALLENGE FOR BUSINESS ORGANIZATIONS?

Much of human endeavor involves striving toward what one might call, *“1x1 flow at lowest energy”* - or - *“the customer getting the value that is wanted or needed, when and where it is wanted or needed.”*

This can be seen as a general challenge around:

- 1) Produce to each customer's order
- 2) With a short lead time

Of course, each organization would state this challenge more specifically and in a way that fits to it's customers, products and situation. Notice also that a wide range of improvement activity involving everyone in an organization will ultimately be necessary in striving to get ever closer to this goal.



THERE IS A *VALUE STREAM CHALLENGE* PLUS A SUBSET *SPECIFIC TO YOUR PROCESS*

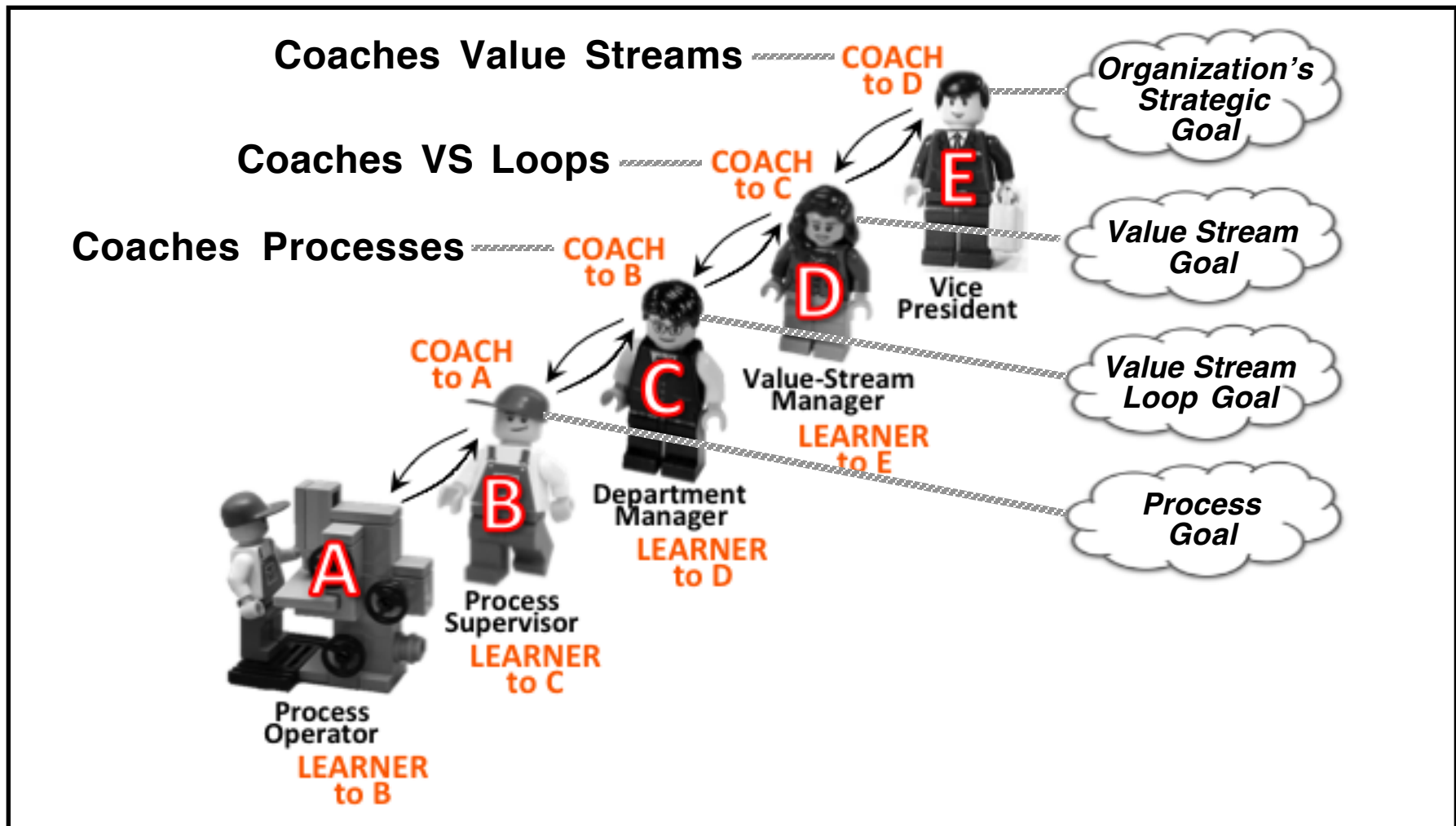
The specific Challenge at your process will come from the Target Condition one level above you. Challenges and Target Conditions should be mathematically linked up-and-down the organization.

Ask: “*How does the Challenge for our process relate mathematically to the larger (value stream) challenge?*” Write your Challenge on your storyboard.



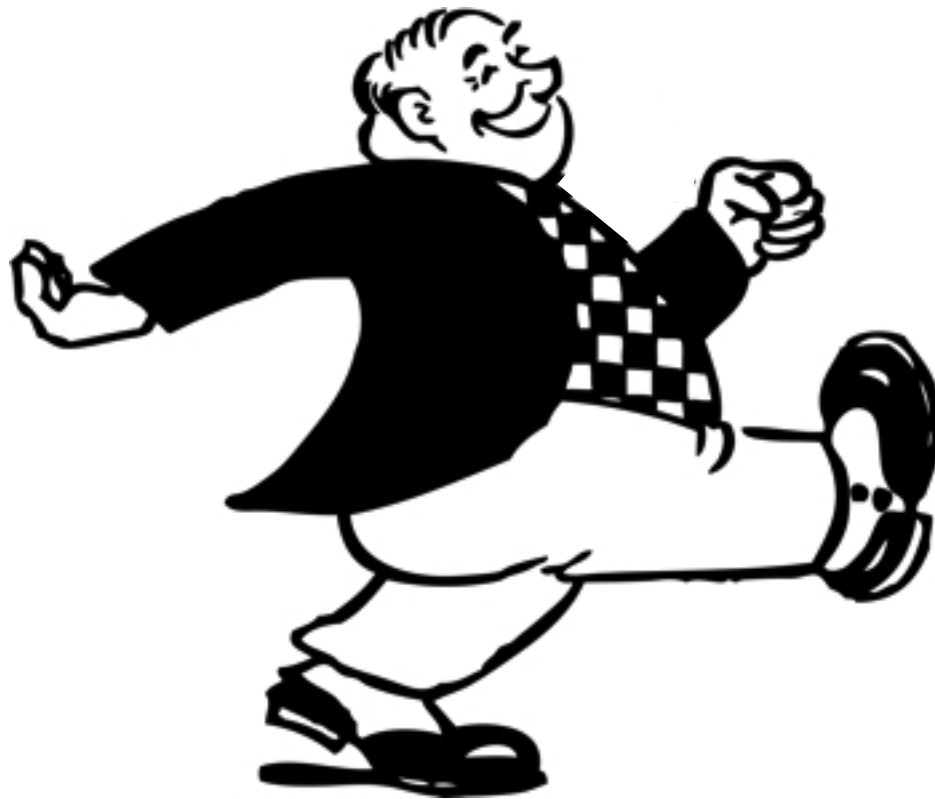
DIFFERENT LEVELS OF CHALLENGE

What coaching to a Challenge looks like



Leadership coaches the next level down in defining an overall Challenge in the direction of the vision. Below that, the *Target Condition* from the level above becomes the *Direction* or *Challenge* for the level below.

LET'S LOOK AHEAD TO THE REST OF THE IMPROVEMENT KATA PATTERN

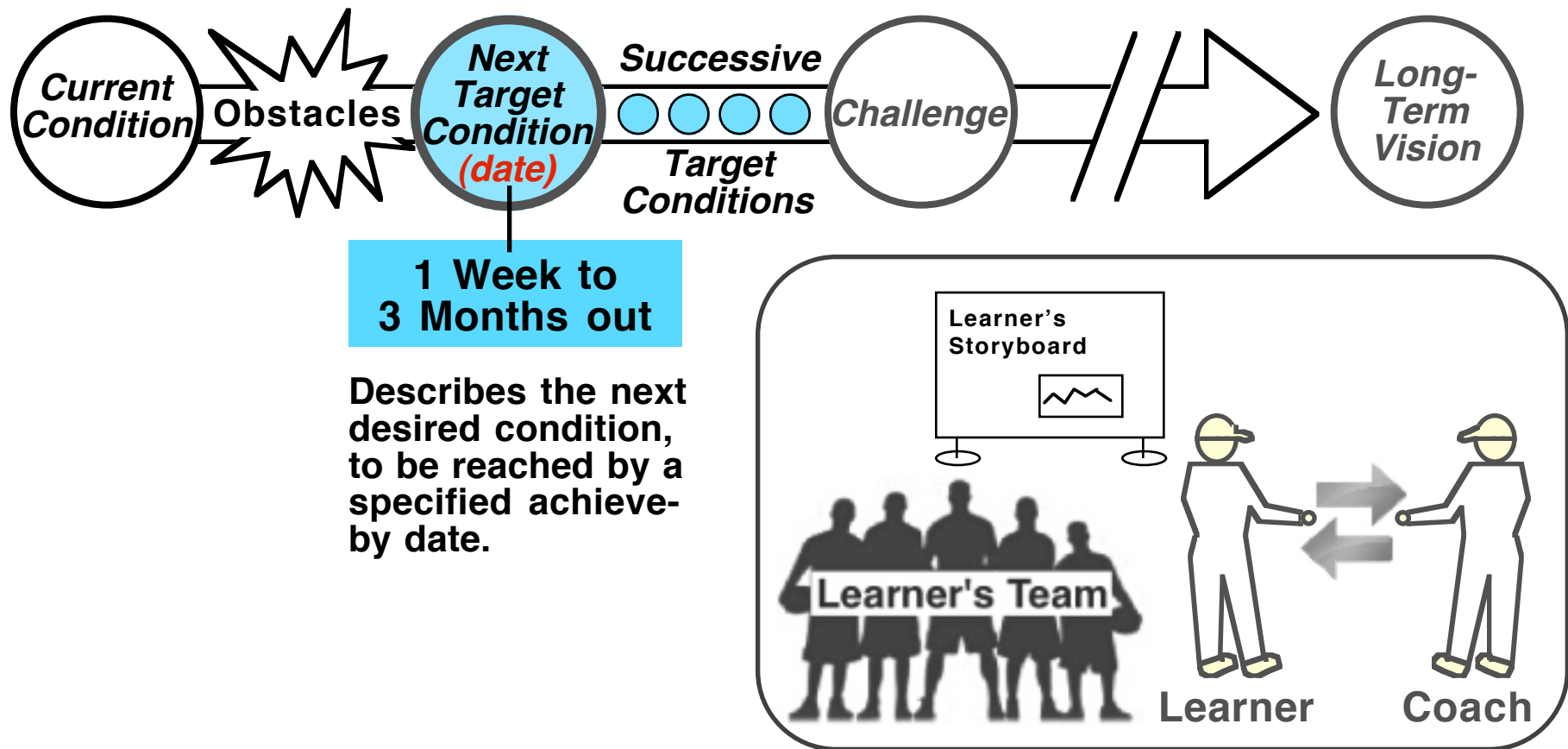


HAVING A CHALLENGE IS NOT ENOUGH

Having a challenge without the ability to execute is ineffective

Just issuing challenges is not sufficient for achieving improvement, adaptiveness and innovation. People in the organization also need to master a systematic, scientific way of working toward a challenge.

Looking ahead to the rest of the Improvement Kata (where execution takes place) it's a series of **Target Conditions** that day-to-day improvement efforts at each level will actually be aiming for.

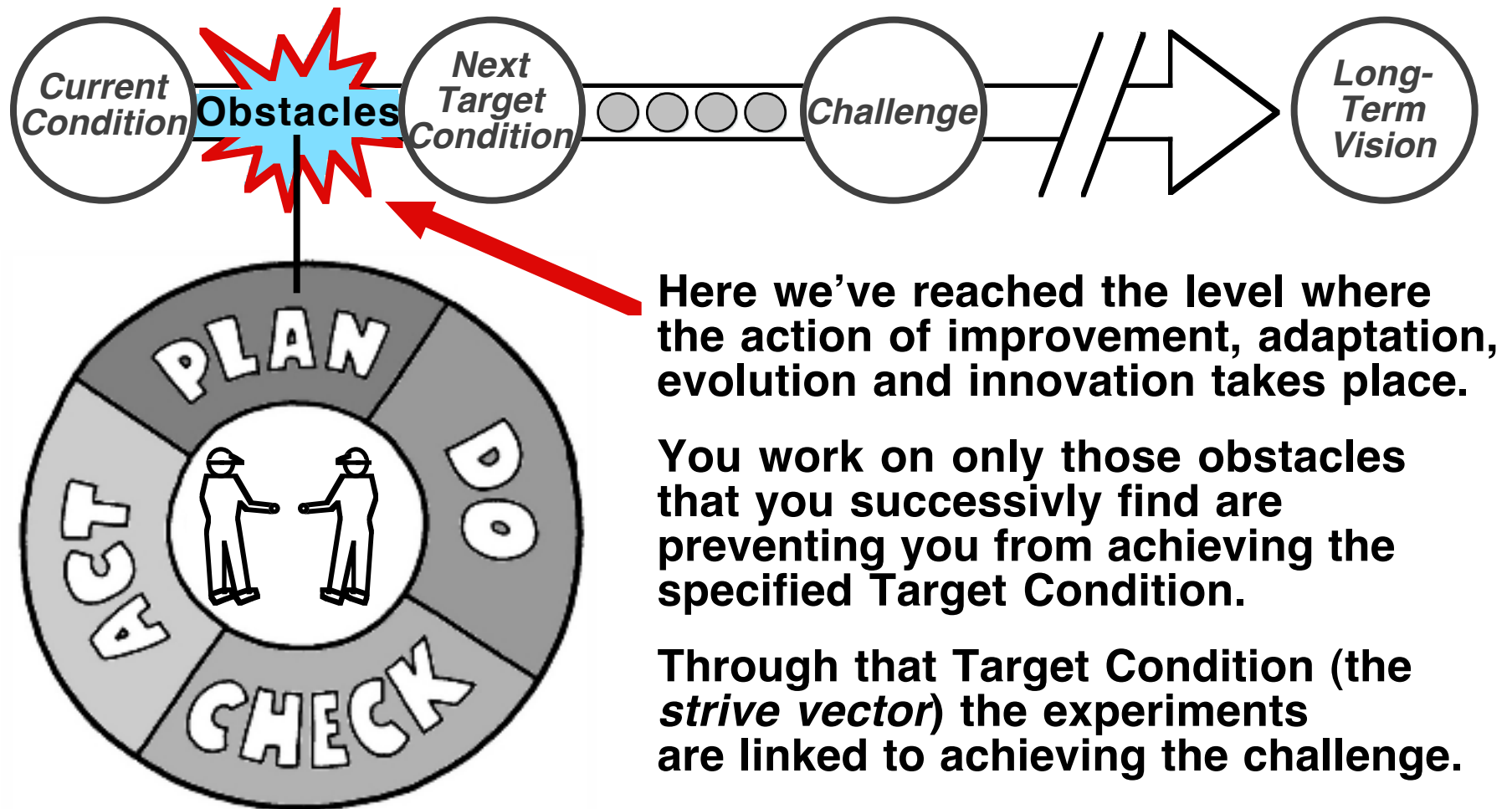


SOME DIFFERENCES BETWEEN A TARGET CONDITION AND A CHALLENGE

TARGET CONDITION	CHALLENGE
<ul style="list-style-type: none">• Is developed in your area Developed by the Learner, guided by the Coach (manager)• Achieve-by date is 1 week to 3 months out A series of successive target conditions is necessary to meet a challenge. When you achieve one target condition you set the next target condition.	<ul style="list-style-type: none">• Comes from the level above you• 6 months - 3 years out

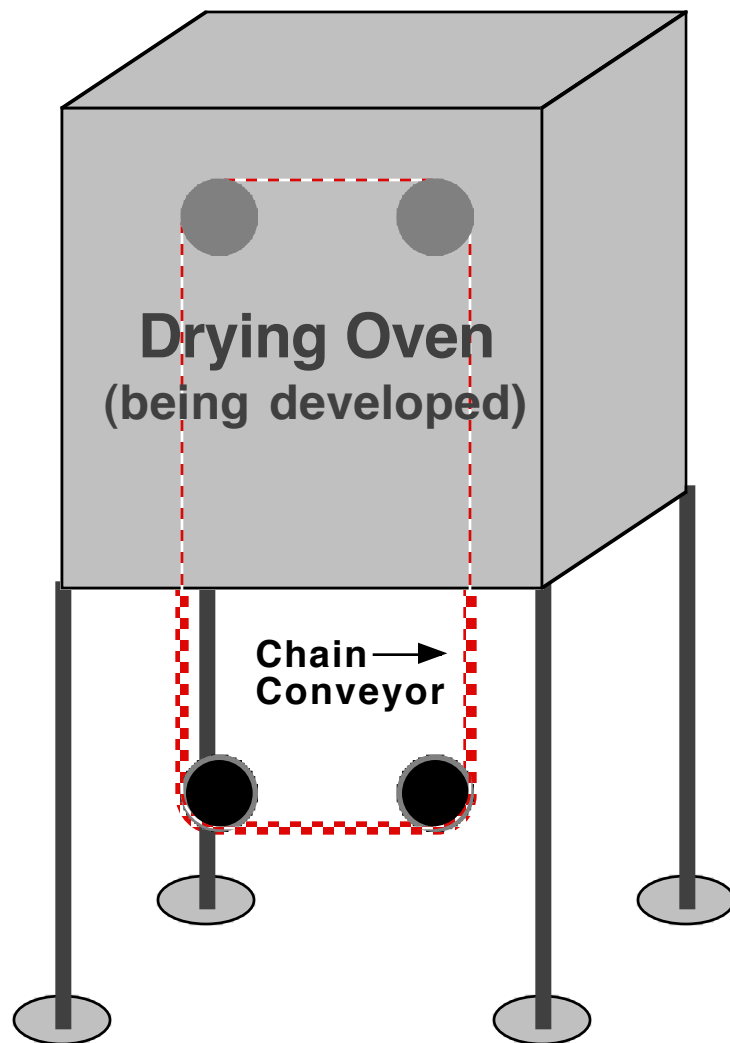
Finally... **Obstacles** to each Target Condition are where **rapid experimentation** takes place

This = iterating (experimenting) toward the Target Condition



A MANUFACTURING EXAMPLE

This team's Target Condition is in-line paint-drying oven with certain attributes



VISION	<i>1x1 Flow</i>
CHALLENGE OR THEME	<i>Paint in Line</i>
NEXT TARGET CONDITION	<i>In-Line Oven (attributes defined)</i>
CURRENT OBSTACLE	<i>Chain conveyor is derailing</i>

More General



More Specific



Detailed Experiments are here

Current Obstacle:
The chain conveyor derails when parts are hung on it.
The team is now experimenting here.

HOW THE IMPROVEMENT KATA PATTERN ALIGNS WITH THE STEPS OF TRADITIONAL SCIENCE

This Handbook seeks to teach Scientific Thinking in a way that relates to everyday life in business, education, politics and at home. Although the emphasis here is more on ‘striving’ rather than just scientific ‘understanding,’ the Improvement Kata pattern is well aligned with how scientists traditionally work.

Traditional Science	Improvement Kata Pattern	Example
“Research Topic” ▼	Challenge ▼	<i>Paint in Line</i>
“Research Problem” ▼	Target Condition ▼	<i>In-Line Oven</i>
“Research Question” ▼	Obstacle ▼	<i>Chain conveyor is derailing</i>
“Hypotheses”	Experiments	<i>Test a different chain</i>

SUMMARY

This trajectory goes from more specific & measurable on the lower left, to less specific & measurable on the upper right.

