Problem-Solving Toolkit

INCREASING PRACTICAL APPLICATION AT FRONTLINE LEVELS

Missouri Leadership Academy Capstone Team E – Spring 2021

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Essential skills for the workplace

Problem solving and critical thinking skills

help us use knowledge, facts, and data to effectively solve problems and make informed decisions

But...according to a 2016 survey of over 60,000 managers,

60%

say that critical thinking/problem solving is the most commonly lacking soft skill in new hires

Source: 2016 Workforce-Skills Preparedness Report, PayScale.com

Understanding the skills

CRITICAL THINKING

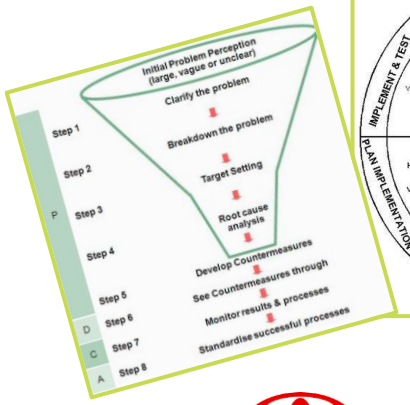
A **way of thinking** that is intentional and reflective

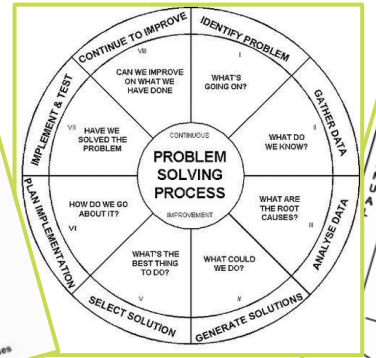
teachthought WE GROW TEACHERS

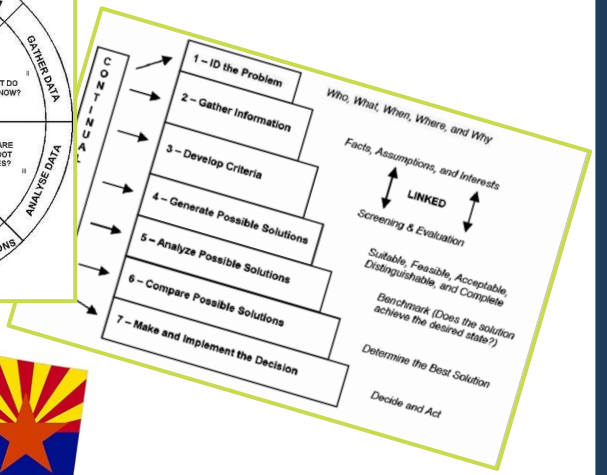
Pearson

PROBLEM SOLVING

a **structured process** of finding solutions to problems







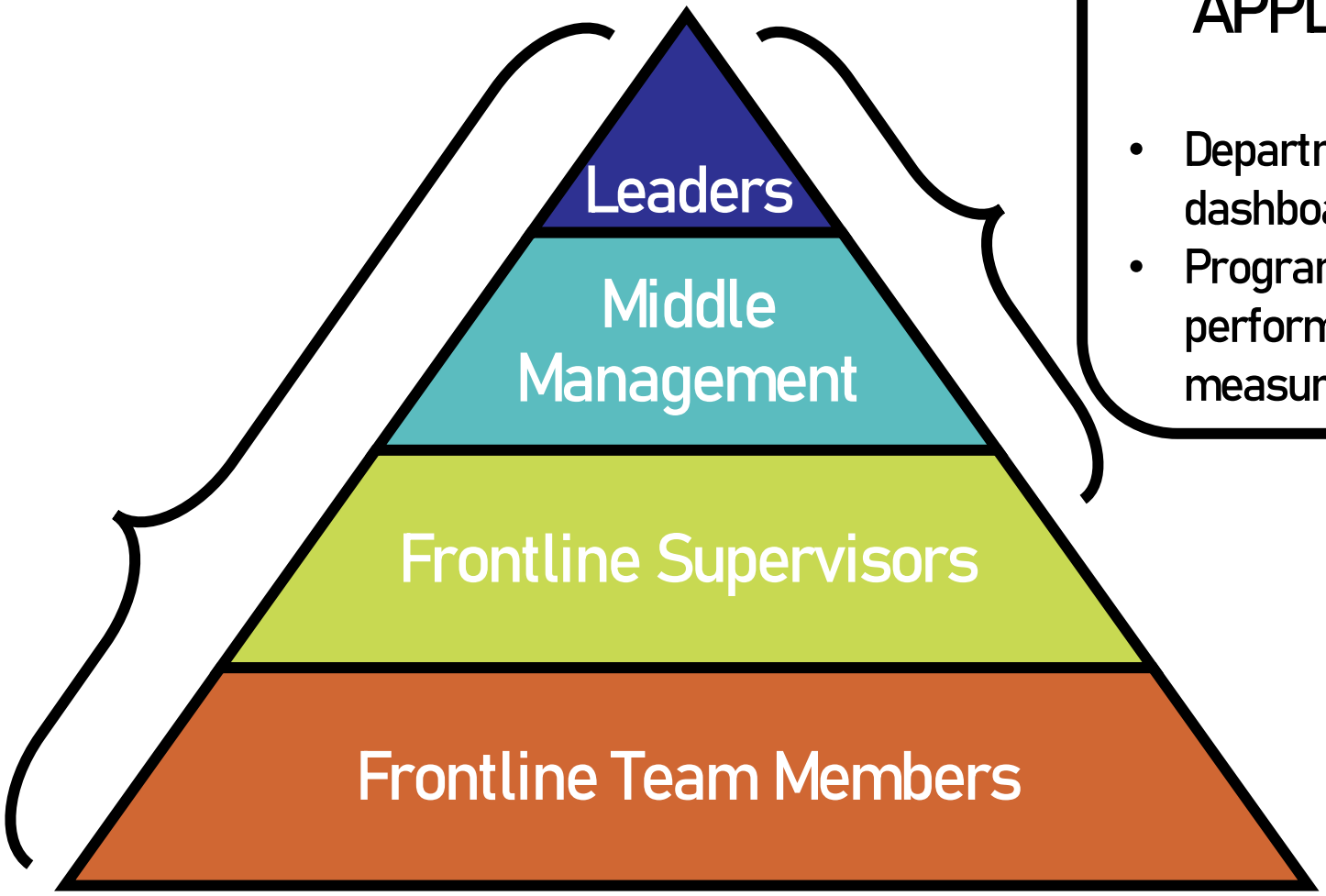
TOYOTA

U.S.ARMY

Missouri's success

CONSISTENT
SKILL DEVELOPMENT

- MoLearning
- Missouri Way
- Leadership Academy
- White- and yellow-belt trainings
- Performance measures and dashboards training

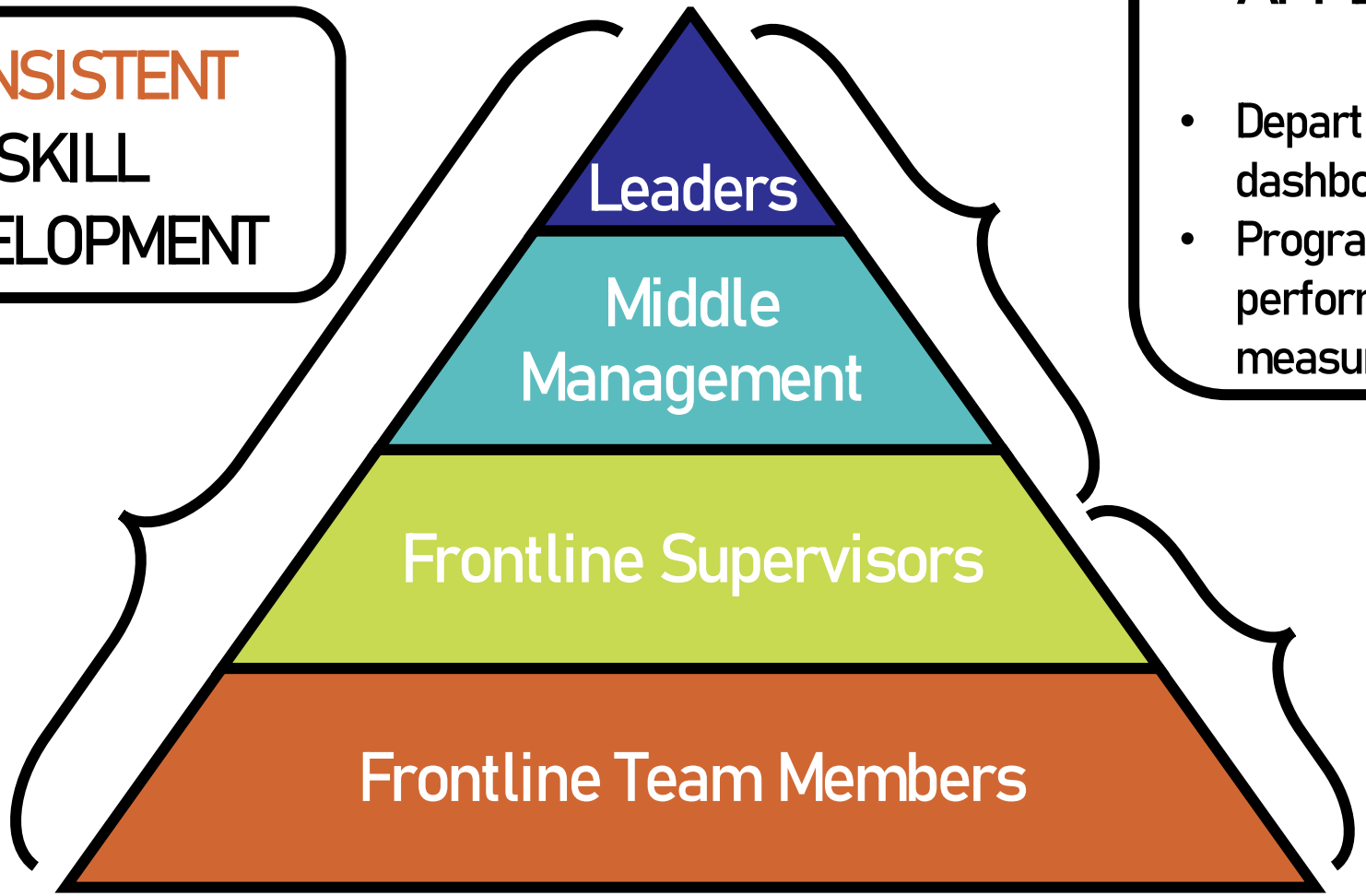


CONSISTENT
PRACTICAL APPLICATION

- Department dashboards
- Program performance measures

Missouri's next steps

CONSISTENT
SKILL
DEVELOPMENT



CONSISTENT
PRACTICAL
APPLICATION

- Department dashboards
- Program performance measures

NEEDED:

Consistent practical application at frontline levels

The State of Missouri must make problem-solving tools accessible to **frontline teams** by providing a **common toolkit** and **consistent pathways** to observe and use them in their day-to-day jobs

Barriers at the frontline

Recent data suggest that frontline team members experience four main barriers to applying problem-solving tools in their job

- Awareness
- Ease of Use
- Translation
- Empowerment

Barriers at the frontline

- **Awareness**
- Ease of Use
- Translation
- Empowerment

90%

of interviewed frontline team members were not aware of common problem-solving tools

Source: 2021 interviews (n = 31)

Barriers at the frontline

Awareness

Ease of Use

Translation

Empowerment

57%

of interviewed frontline team members would be more likely to use problem-solving tools if they were short and simple

> "Success would be a big one. Simple is really important. And how much gain do I get for the effort."

Source: 2021 interviews (n = 31)

Barriers at the frontline

Awareness

Ease of Use

Translation

Empowerment

What would make you more inclined to use these problem-solving tools?

-

> "Looking for things that seem applicable to my work."

> "...knowing how it can be best applied, especially how to use product X for my job. Looking for tailored training."

Source: 2021 interviews

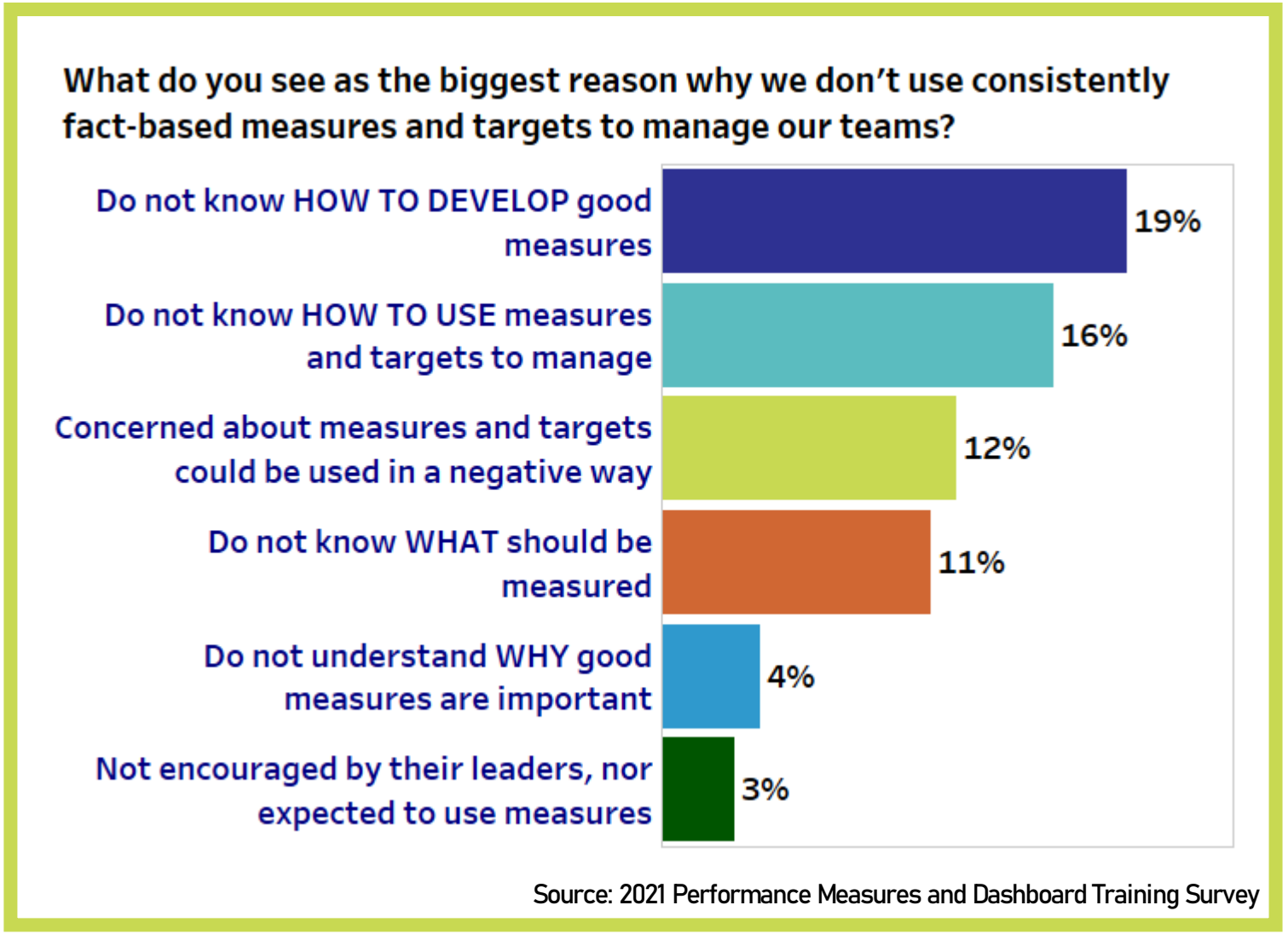
Barriers at the frontline

Awareness

Ease of Use

Translation

Empowerment



Barriers at the frontline

- Awareness
- Ease of Use
- **Translation**
- Empowerment

Different teams face problems in different contexts

Photos: DOC, MODOT, MDC, DNR

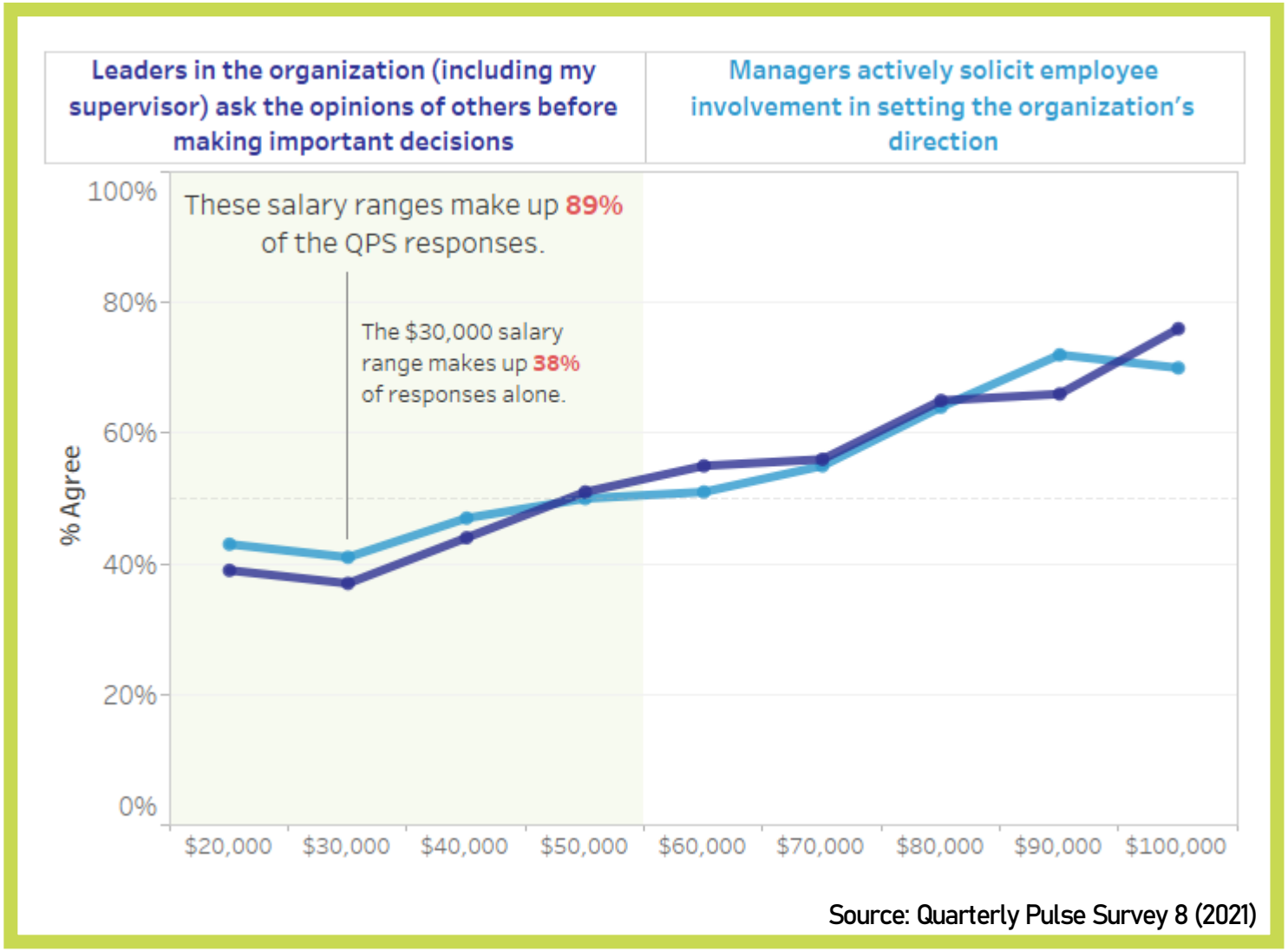
Barriers at the frontline

Awareness

Ease of Use

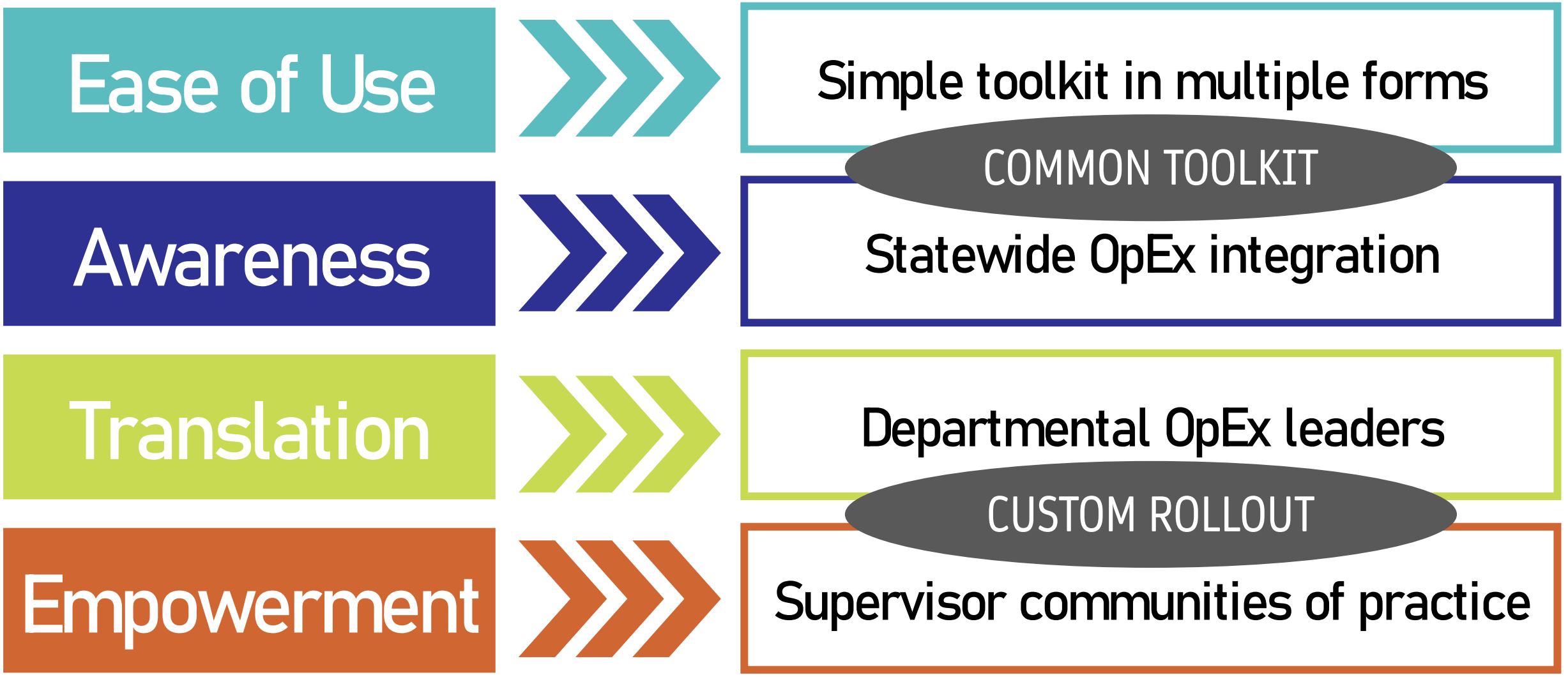
Translation

Empowerment



Source: Quarterly Pulse Survey 8 (2021)

Overcoming frontline barriers

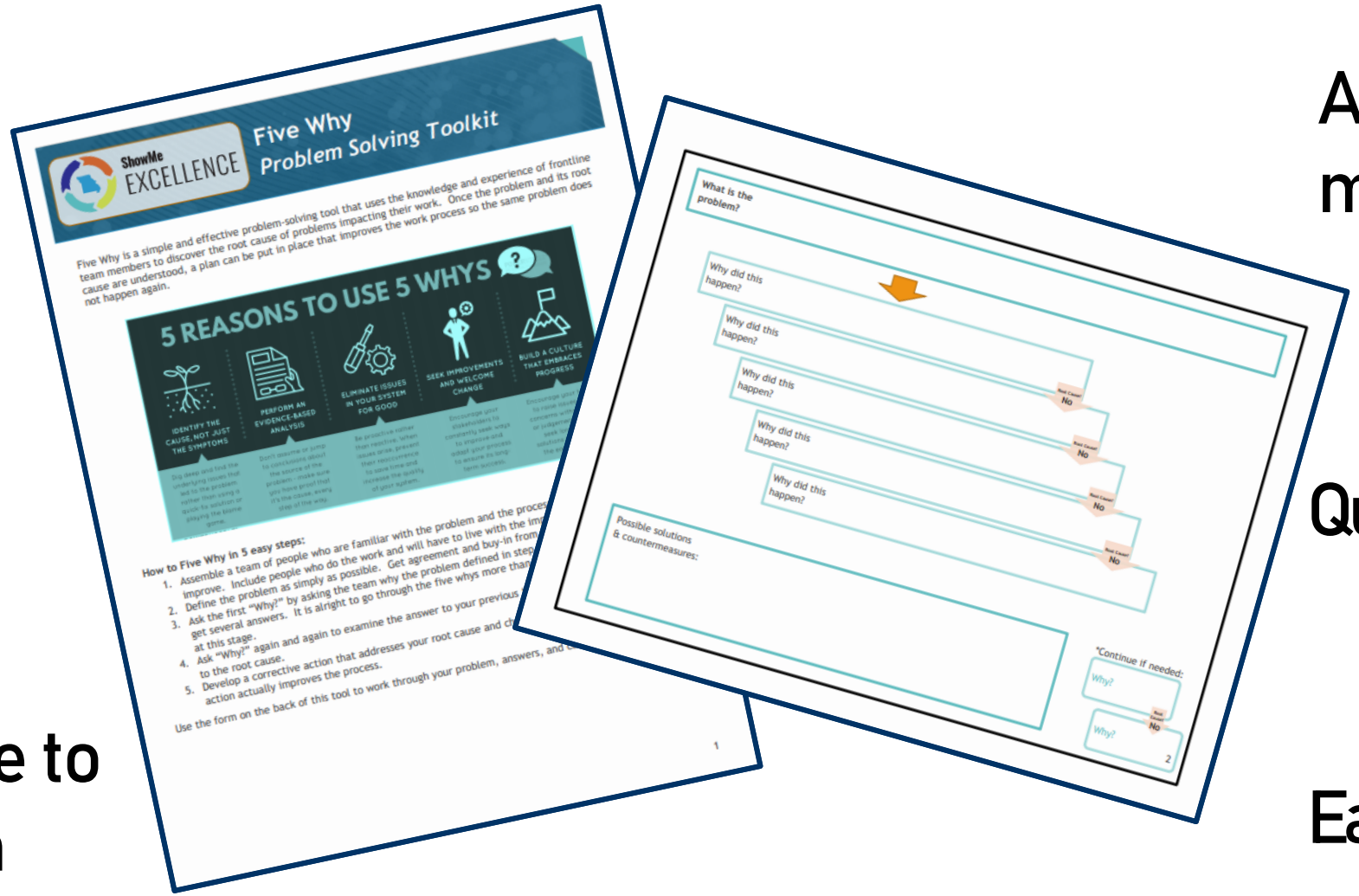


Common toolkit

A common set of tools

Logical and methodical

Adaptable to any team



Available in many formats

Quick to learn

Easy to use

Ties in with existing and planned OpEx activities

What's in the toolkit

Short, simple instructions

ShowMe EXCELLENCE

Five Why
Problem Solving Toolkit

Five Why is a simple and effective problem-solving tool that uses the knowledge and experience of frontline team members to discover the root cause of problems impacting their work. Once the problem and its root cause are understood, a plan can be put in place that improves the work process so the same problem does not happen again.

5 REASONS TO USE 5 WHYS

IDENTIFY THE CAUSE, NOT JUST THE SYMPTOMS

PERFORM AN EVIDENCE-BASED ANALYSIS

ELIMINATE ISSUES IN YOUR SYSTEM FOR GOOD!

SEEK IMPROVEMENTS AND WELCOME CHANGE

BUILD A CULTURE THAT EMBRACES PROGRESS

How to Five Why in 5 easy steps:

1. Assemble a team of people who are familiar with the problem and the process you're trying to improve. Include people who do the work and will have to live with the improvements you've made.
2. Define the problem as simply as possible. Get agreement and buy-in from the team.
3. Ask the first "Why?" by asking the team why the problem defined in step two is occurring. You may get several answers. It is alright to go through the five whys more than once if there isn't agreement at this stage.
4. Ask "Why?" again and again to examine the answer to your previous "Why?" Keep going until you get to the root cause.
5. Develop a corrective action that addresses your root cause and check to make sure your corrective action actually improves the process.

Use the form on the back of this tool to work through your problem, answers, and corrective action.

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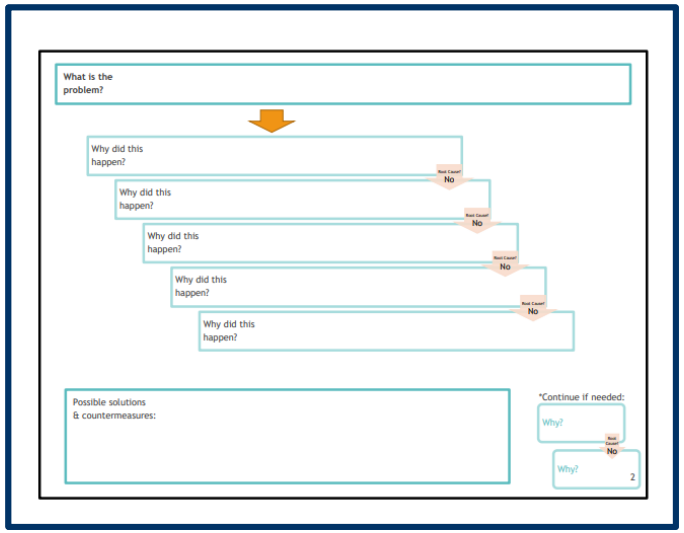
Easy-to-use templates



Proven tools, logical organization

What's the problem?

- Five why's
- Fishbone diagram

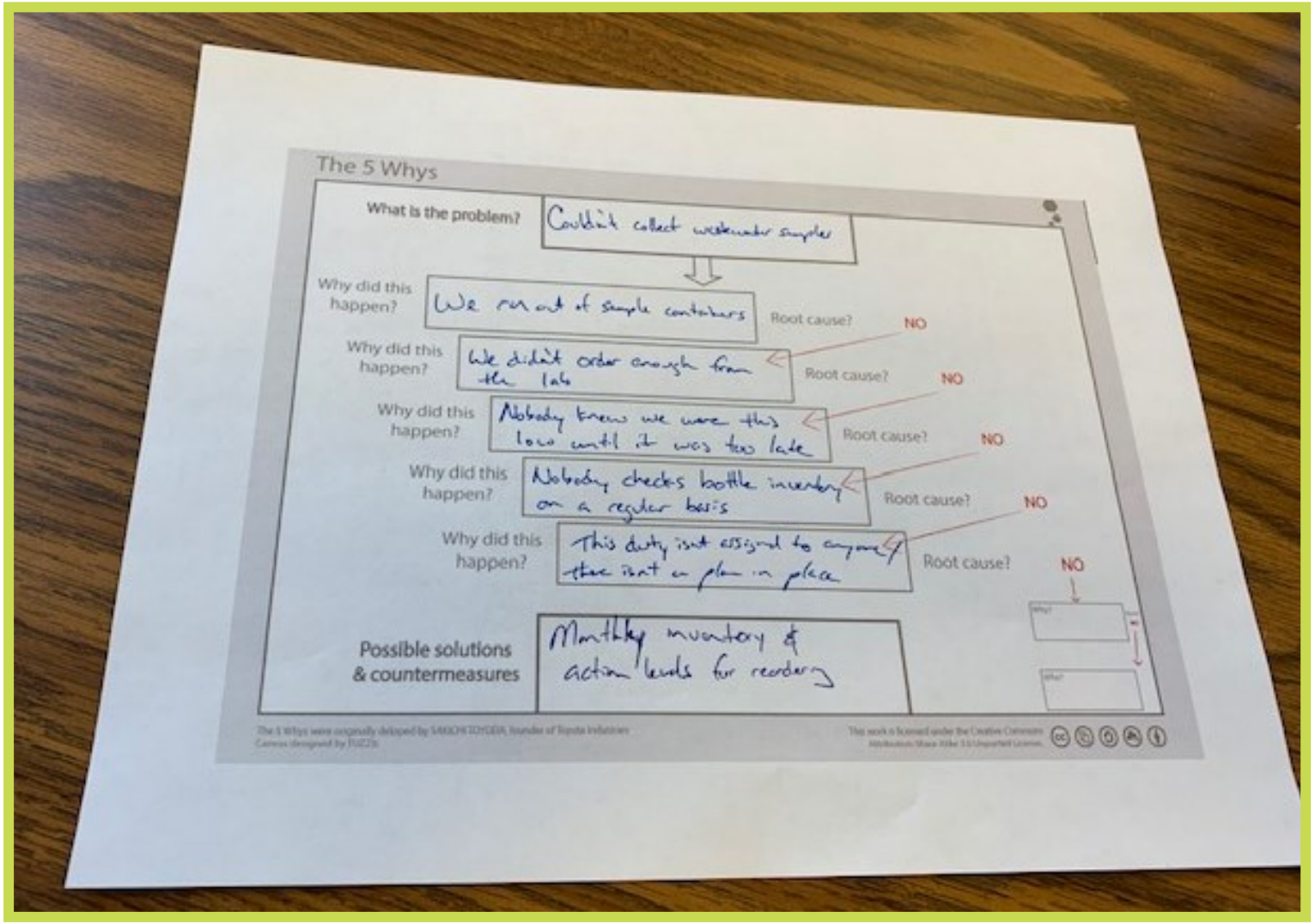
How do I fix it?

- Process mapping
- 5-S waste reduction

How can I make sure it stays fixed?

- Plan-do-check-act
- Tactical metrics

Using the toolkit at Missouri DNR



What's the solution?

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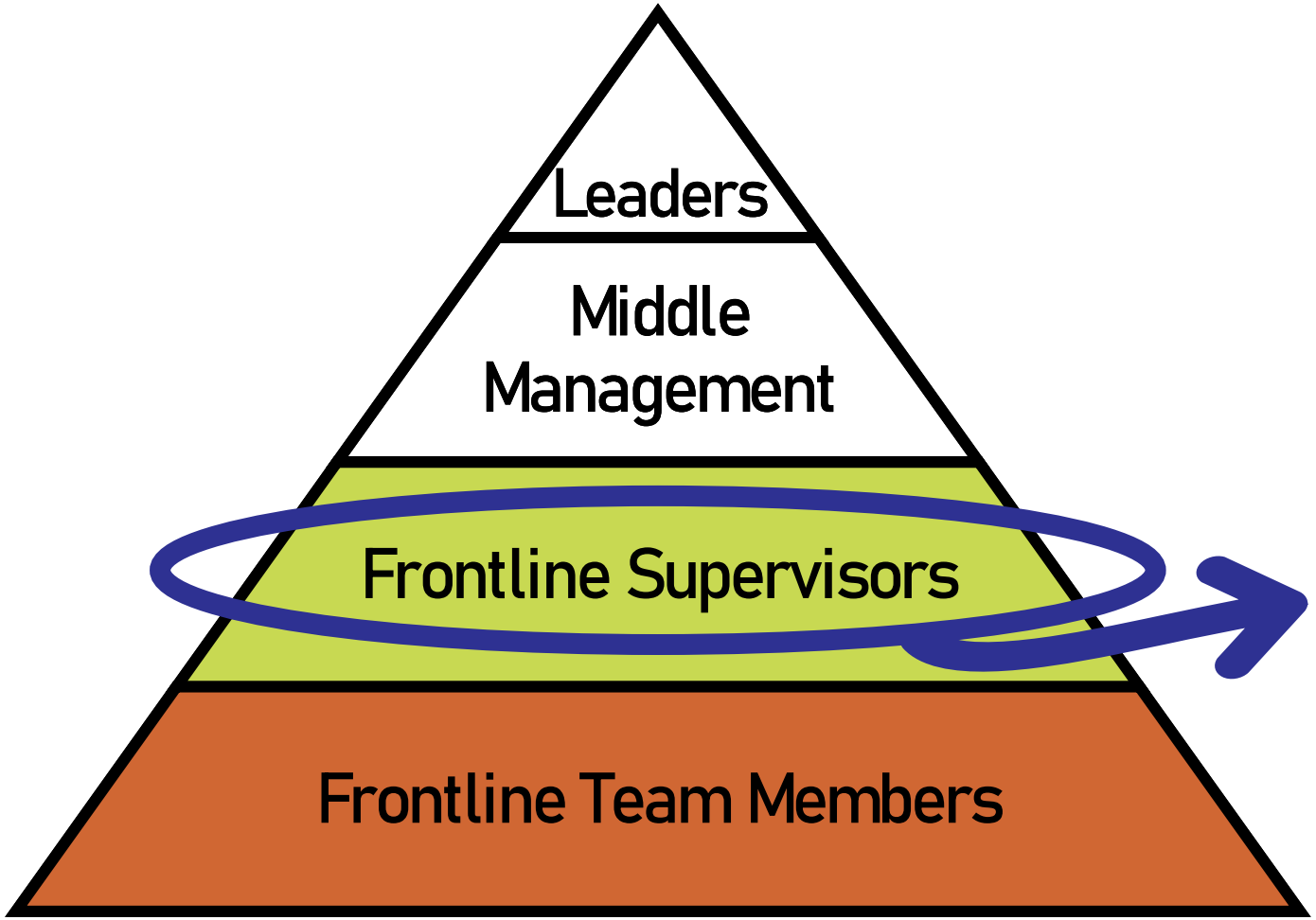
Monthly inventory and action levels for reordering

Custom Rollout: Frontline Supervisor Focus

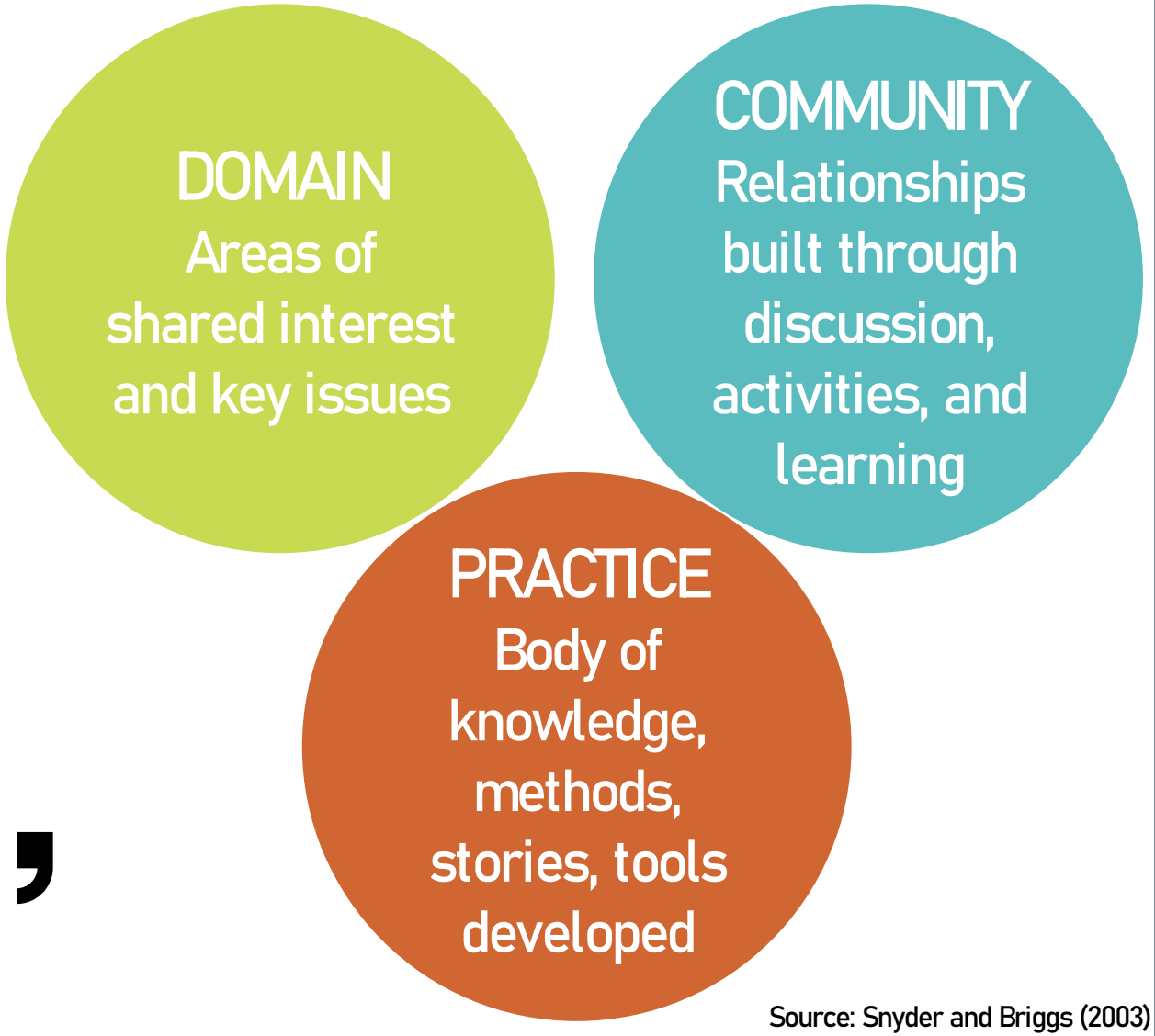


Why frontline supervisors?

- Familiar with tailored needs of frontline teams
- Higher level of similarity
- Their comfort and confidence is key to frontline empowerment

Communities of Practice

> "Communities of practice steward the knowledge assets of organizations… They operate as "social learning systems" where practitioners connect to solve problems, share ideas, set standards, build tools, and develop relationships with peers…"

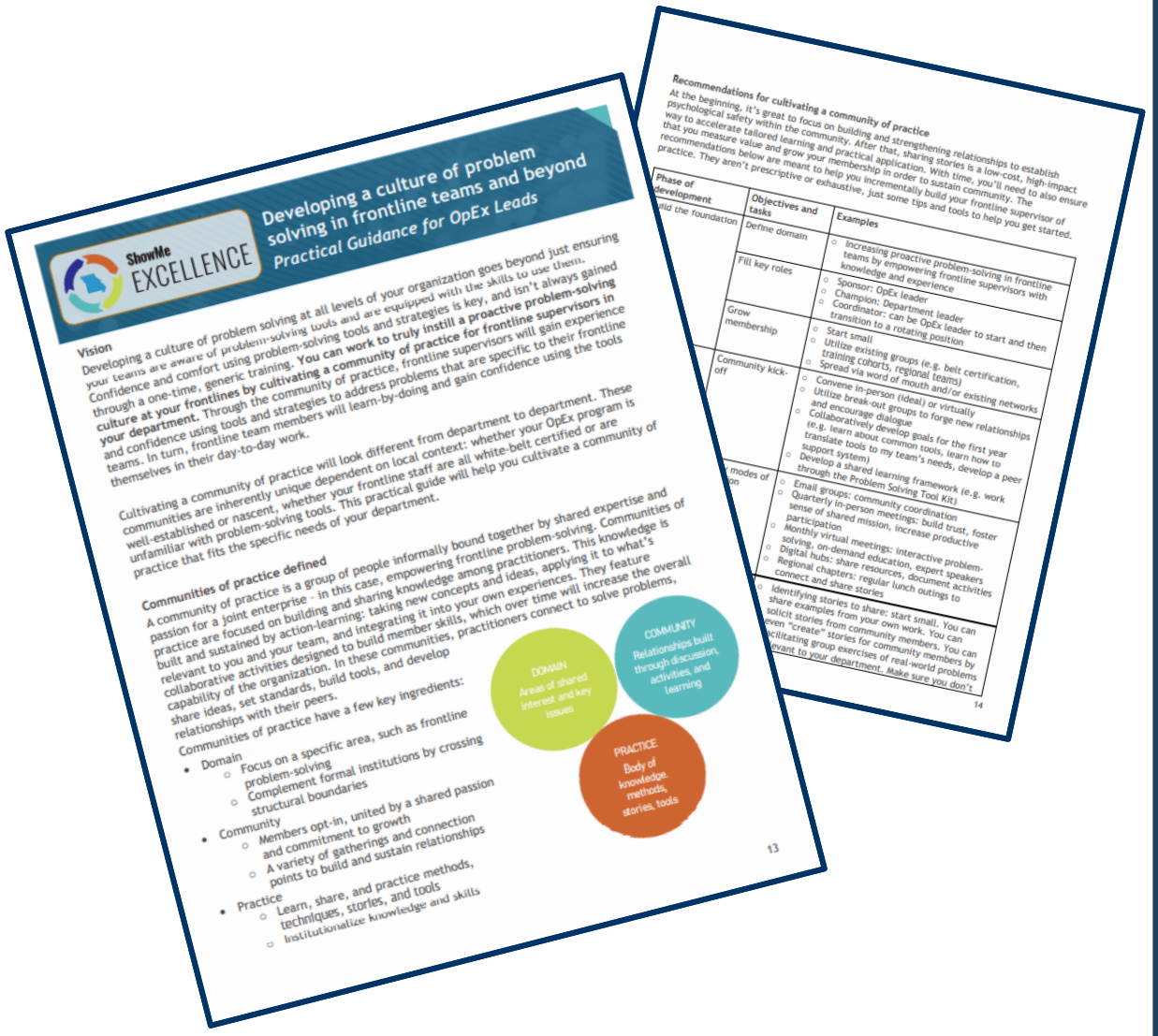


Source: Snyder and Briggs (2003)

Community of Practice Resource Guide

Resource Guide for Departmental OpEx Leaders

- Start where you are
- Grow your community
- Share your stories
- Incrementally build infrastructure
- Measure value



ShowMe EXCELLENCE

Developing a culture of problem solving in frontline teams and beyond

Practical Guidance for OpEx Leads

Vision

Developing a culture of problem solving at all levels of your organization goes beyond just ensuring your teams are aware of problem-solving tools and are equipped with the skills to use them. Confidence and comfort using problem-solving tools and strategies is key, and isn't always gained through a one-time, generic training. **You can work to truly instill a proactive problem-solving culture at your frontlines by cultivating a community of practice for frontline supervisors in your department.** Through the community of practice, frontline supervisors will gain experience and confidence using tools and strategies to address problems that are specific to their frontline teams. In turn, frontline team members will learn-by-doing and gain confidence using the tools themselves in their day-to-day work.

Cultivating a community of practice will look different from department to department. These communities are inherently unique dependent on local context: whether your OpEx program is well-established or nascent, whether your frontline staff are all white-belt certified or are unfamiliar with problem-solving tools. This practical guide will help you cultivate a community of practice that fits the specific needs of your department.

Communities of practice defined

A community of practice is a group of people informally bound together by shared expertise and passion for a joint enterprise - in this case, empowering frontline problem-solving. Communities of practice are focused on building and sharing knowledge among practitioners. This knowledge is built and sustained by action-learning: taking new concepts and ideas, applying it to what's relevant to you and your team, and integrating it into your own experiences. They feature collaborative activities designed to build member skills, which over time will increase the overall capability of the organization. In these communities, practitioners connect to solve problems, share ideas, set standards, build tools, and develop relationships with their peers.

Communities of practice have a few key ingredients:

- Domain
  - Focus on a specific area, such as frontline problem-solving
  - Complement formal institutions by crossing structural boundaries
- Community
  - Members opt-in, united by a shared passion and commitment to growth
  - A variety of gatherings and connection points to build and sustain relationships
- Practice
  - Learn, share, and practice methods, techniques, stories, and tools
  - Institutionalize knowledge and skills

13

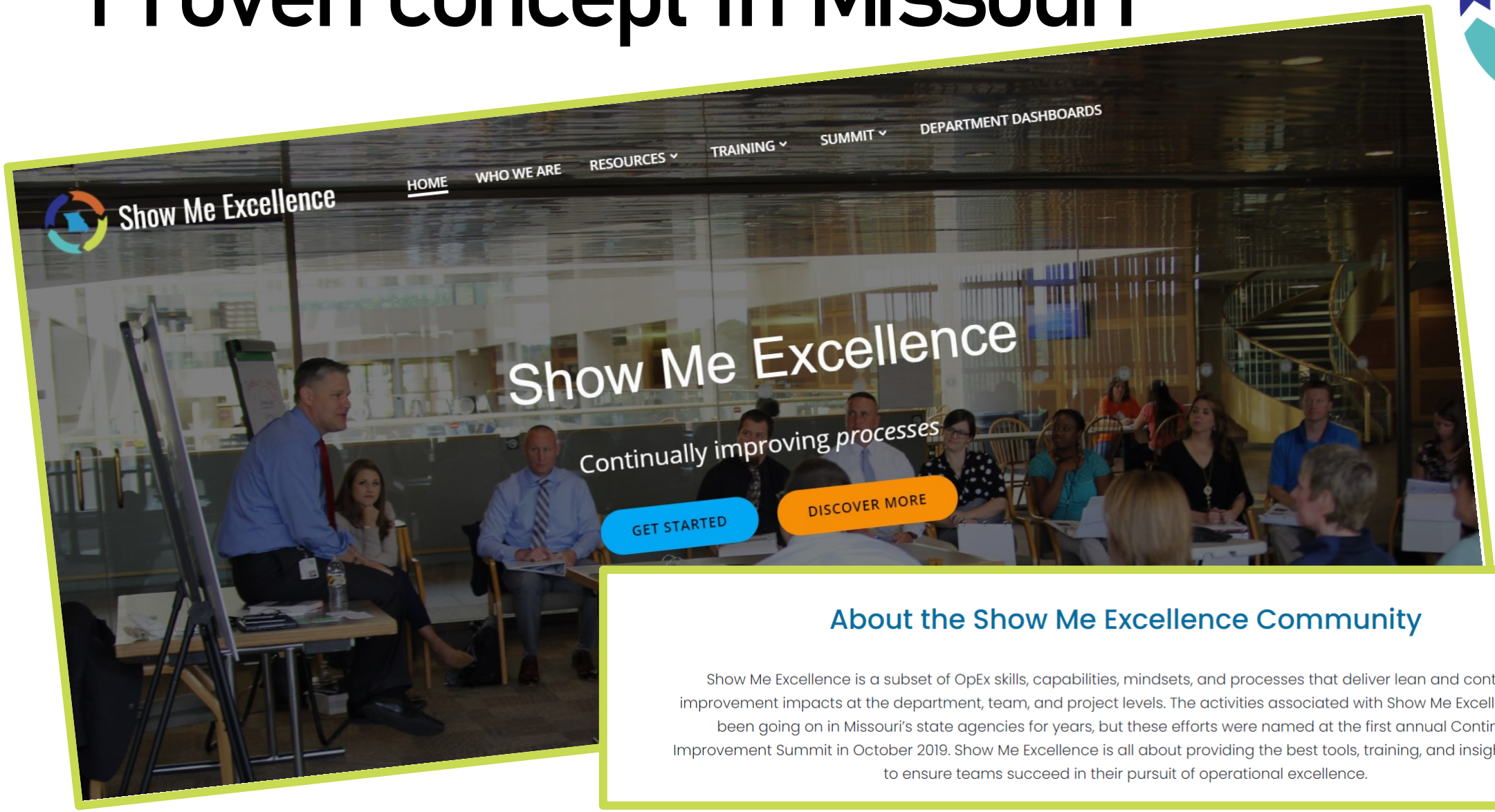
Recommendations for cultivating a community of practice

At the beginning, it's great to focus on building and strengthening relationships to establish psychological safety within the community. After that, sharing stories is a low-cost, high-impact way to accelerate tailored learning and practical application. With time, you'll need to also ensure that you measure value and grow your membership in order to sustain community. The recommendations below are meant to help you incrementally build your frontline supervisor of practice. They aren't prescriptive or exhaustive, just some tips and tools to help you get started.

Phase of development	Objectives and tasks	Examples
Build the foundation	Define domain	○ Increasing proactive problem-solving in frontline teams by empowering frontline supervisors with knowledge and experience
	Fill key roles	○ Sponsor: OpEx leader ○ Champion: Department leader ○ Coordinator: can be OpEx leader to start and then transition to a rotating position
	Grow membership	○ Start small ○ Utilize existing groups (e.g. belt certification, training cohorts, regional teams) ○ Spread via word of mouth and/or existing networks
	Community kick-off	○ Convene in-person (ideal) or virtually ○ Utilize break-out groups to forge new relationships and encourage dialogue ○ Collaboratively develop goals for the first year (e.g. learn about common tools, learn how to translate tools to my team's needs, develop a peer support system) ○ Develop a shared learning framework (e.g. work through the Problem Solving Tool Kit)
Grow and sustain	Modes of engagement	○ Email groups: community coordination ○ Quarterly in-person meetings: build trust, foster sense of shared mission, increase productive participation ○ Monthly virtual meetings: interactive problem-solving, on-demand education, expert speakers ○ Digital hubs: share resources, document activities ○ Regional chapters: regular lunch outings to connect and share stories
		○ Identifying stories to share: start small. You can share examples from your own work. You can solicit stories from community members. You can even "create" stories for community members by facilitating group exercises of real-world problems relevant to your department. Make sure you don't

14

Proven concept in Missouri



About the Show Me Excellence Community

Show Me Excellence is a subset of OpEx skills, capabilities, mindsets, and processes that deliver lean and continuous improvement impacts at the department, team, and project levels. The activities associated with Show Me Excellence have been going on in Missouri's state agencies for years, but these efforts were named at the first annual Continuous Improvement Summit in October 2019. Show Me Excellence is all about providing the best tools, training, and insight available to ensure teams succeed in their pursuit of operational excellence.

Intentionally Complementary

- Ongoing partnership with ShowMe Excellence
- Fills a known gap: smaller problems and processes
- Designed to integrate with existing efforts and networks

ShowMe EXCELLENCE

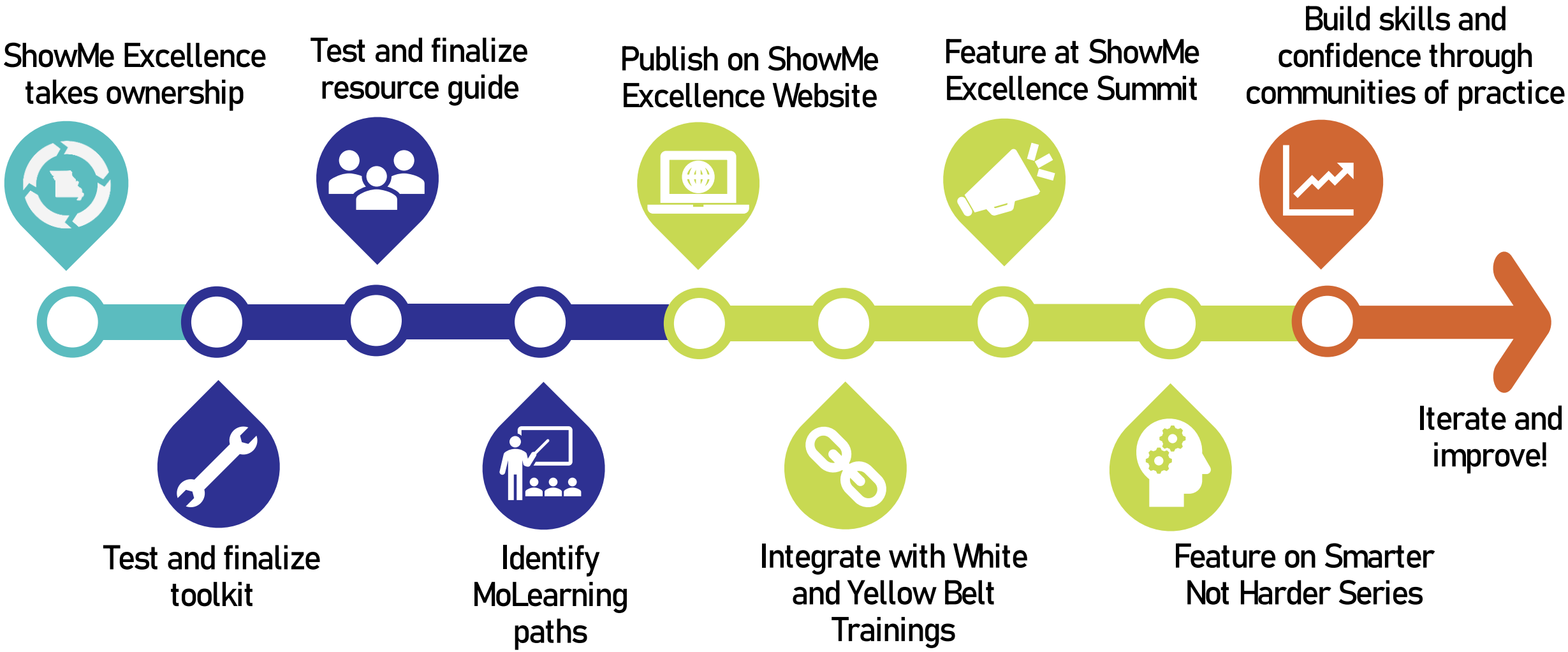
In the next 3–6 months, what activities by the OpEx community do you think will have the greatest impact?

-

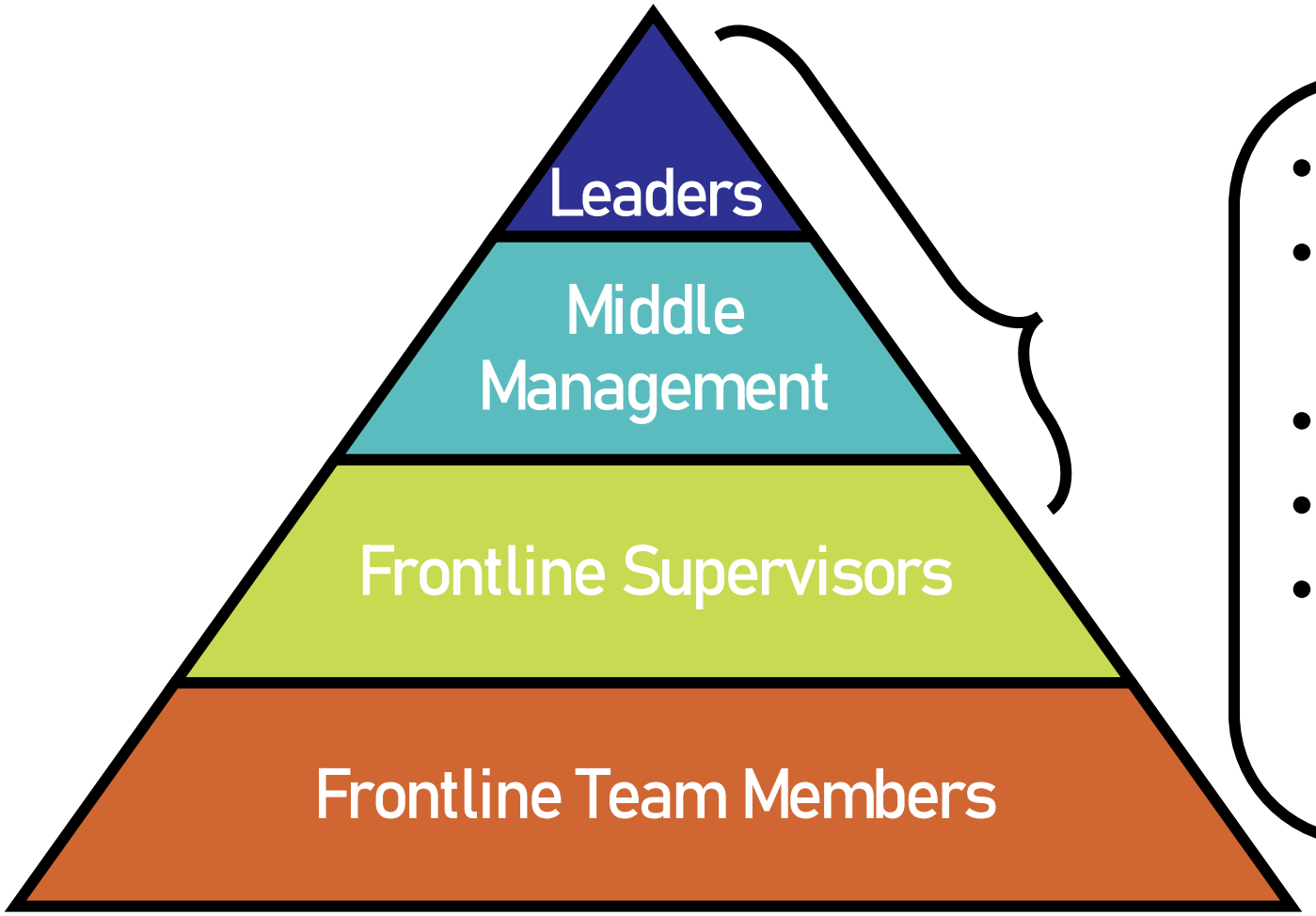
> “Ensuring a simple, proven set of tools is available and easy to distribute and track usage”

Source: 2021 ShowMe Excellence Taking Stock Survey

Next Steps


ShowMe Excellence takes ownership
Test and finalize resource guide
Publish on ShowMe Excellence Website
Feature at ShowMe Excellence Summit
Build skills and confidence through communities of practice
Test and finalize toolkit
Identify MoLearning paths
Integrate with White and Yellow Belt Trainings
Feature on Smarter Not Harder Series
Iterate and improve!

Here's how you can help



- Support OpEx leaders
- Support communities of practice
- Champion a tool
- Share stories widely
- Foster a culture that empowers frontline decision-making

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Thank you!