



Quest Diagnostics

Continuous Improvement (*kaizen*) in Clinical Laboratory Settings

Presented by: Zane Ferry, Exec. Director
Nat'l Operations - QMS Continuous Improvement



Quest Diagnostics: Inspiring action through insight

Quest Diagnostics is far more than a lab

We are a driving force behind the innovations and solutions you need to help you stay ahead of the curve and continue to deliver quality care



Inspiring action to better health with
LEADING DIAGNOSTIC INFORMATION CAPABILITIES



Illuminating answers through
ADVANCED ANALYTICS & TECHNOLOGY SOLUTIONS



Advocating better health with a
PORTFOLIO OF SPECIALIZED SOLUTIONS

Delivering innovative solutions across the healthcare continuum through our clinical testing franchises



General Health & Wellness

Providing a deeper understanding of a patient's overall health to avoid more serious conditions

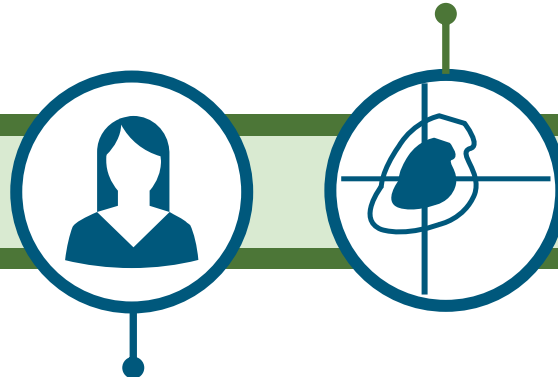


+250 tests targeting CVD, diabetes and endocrine disorders, offering insights for early diagnosis and treatment

Cardiometabolic & Endo

Cancer Diagnostics

Cutting-edge testing solutions enabling precision for uncovering treatment options and targeting therapies

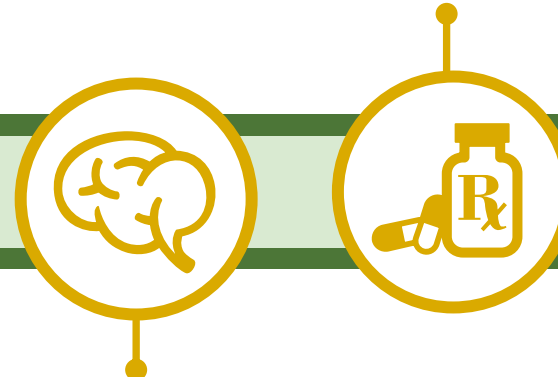


Comprehensive menu spanning the continuum of women's care, supporting the diversity of female health needs

Women's Health

Prescription Drug Monitoring

Ongoing research and development of new tests to keep pace with the dynamic toxicology marketplace

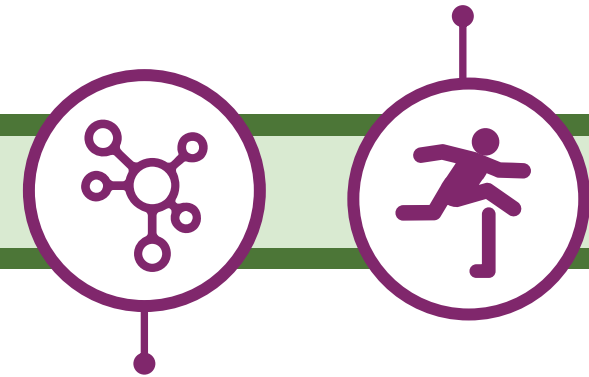


+500 Neurology genetics and immunology tests providing insights across the continuum of care for pediatric, adult and geriatric populations

Neurology

Sports Diagnostics

Customized diagnostics athletes can use to optimize performance, avoid injury and support overall health



+1200 tests, providing insights from screening and diagnosis to treatment selection and monitoring

Infectious Disease & Immunology

Driving diagnostic innovation and collaborations to deliver consistent quality and outcomes



Advanced Diagnostics



Athena



Nichols Institute

Our esoteric laboratories provide cutting-edge research and development of new assays to produce tests with greater sensitivity, specificity, efficiency and clinical value

Medical Experts



Quest employs 650+ MDs/PhDs, and Genetic Counselors, many of whom are leaders and innovators within their respective fields of medicine across our laboratories

Academic Collaborations

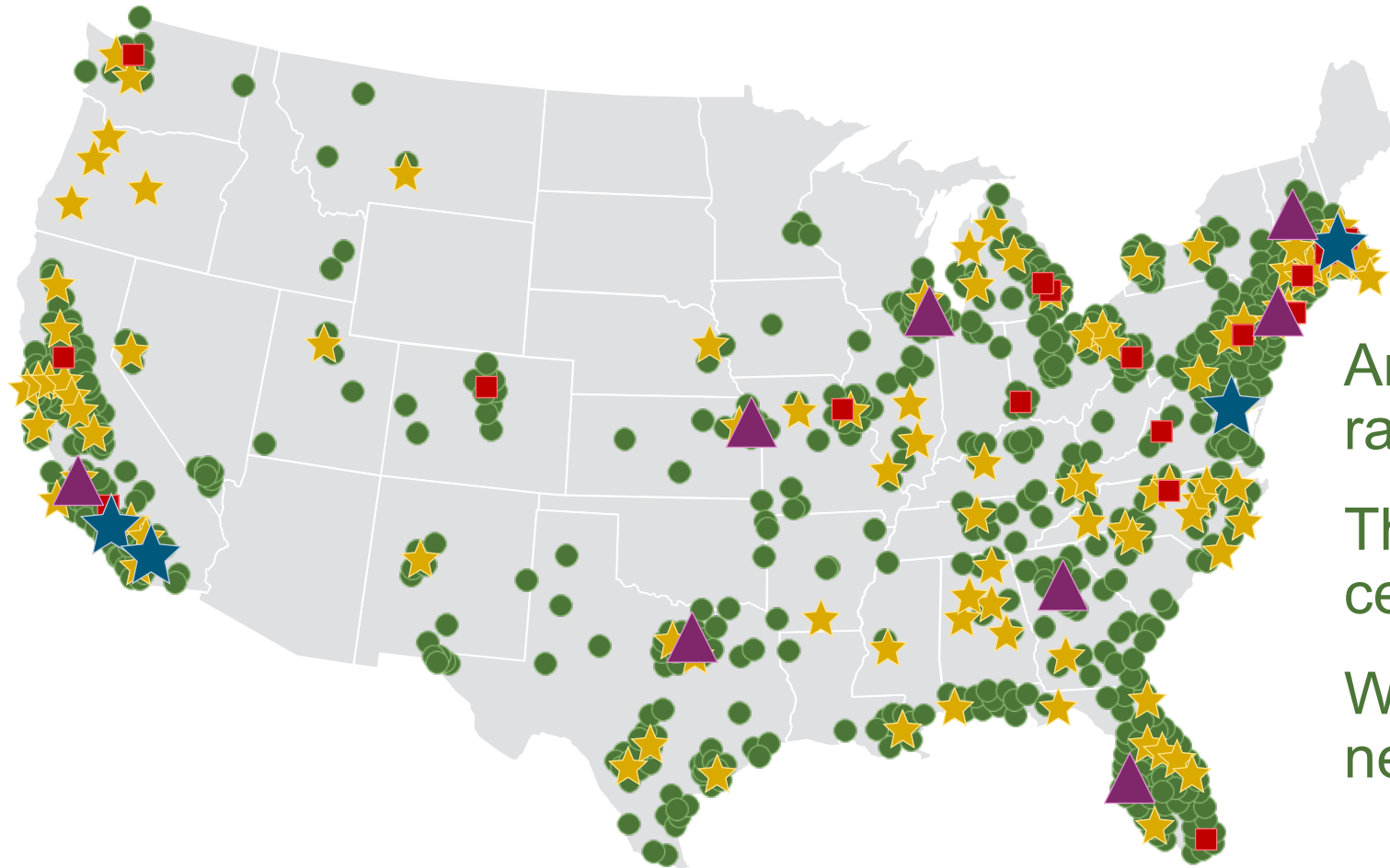


Memorial Sloan-Kettering Cancer Center



We continually collaborate with leading academic institutions to drive diagnostic discovery and innovation in order to meet the challenges of today

Capacity to meet clinical and logistical demands through a world-leading diagnostic infrastructure



An expansive network of labs ranging in size and sophistication

Thousands of patient service centers

We're never too far away from the needs of our patients

- ▲ Regional Hub Labs
- ★ Regional Response Labs
- ★ Esoteric Labs
- Regional Service Labs
- Patient Service Centers

1

VISION

Empowering
better health with
diagnostic insights

2

2-POINT STRATEGY

Accelerate growth

- Grow General Diagnostics
- Expand Advanced Diagnostics
- Extend Diagnostic Services

Drive operational excellence

- Enhance the Quest customer experience
- Deliver Invigorate operational efficiencies

3

GOALS

 **Promote** a healthier world

 **Build** value

 **Create** an inspiring workplace

HOW WE OPERATE



Our principles

- Focus on diagnostic information services
- Strengthen organizational capabilities
- Deliver disciplined capital deployment



Our behaviors

- Agile
- Customer Focused
- Transparent
- United as One Team
- Performance Oriented

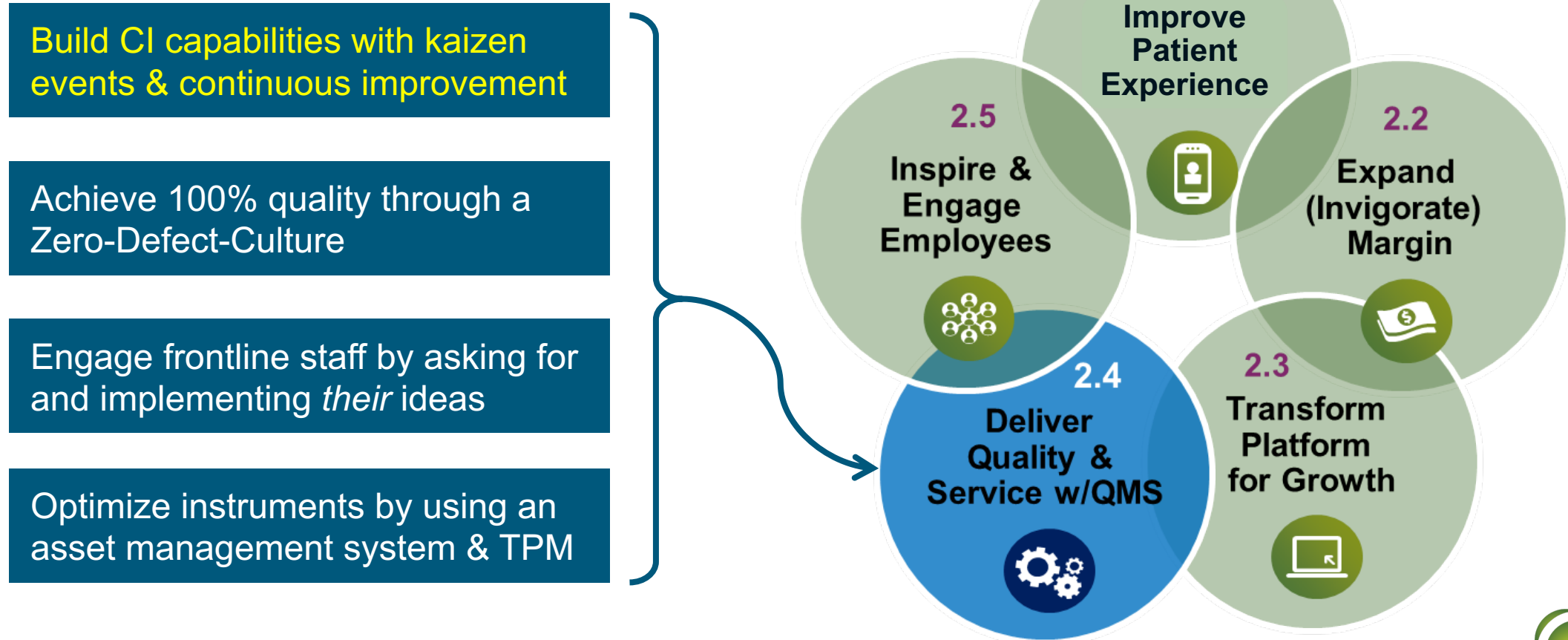


Our values

- Quality
- Integrity
- Innovation
- Accountability
- Collaboration
- Leadership

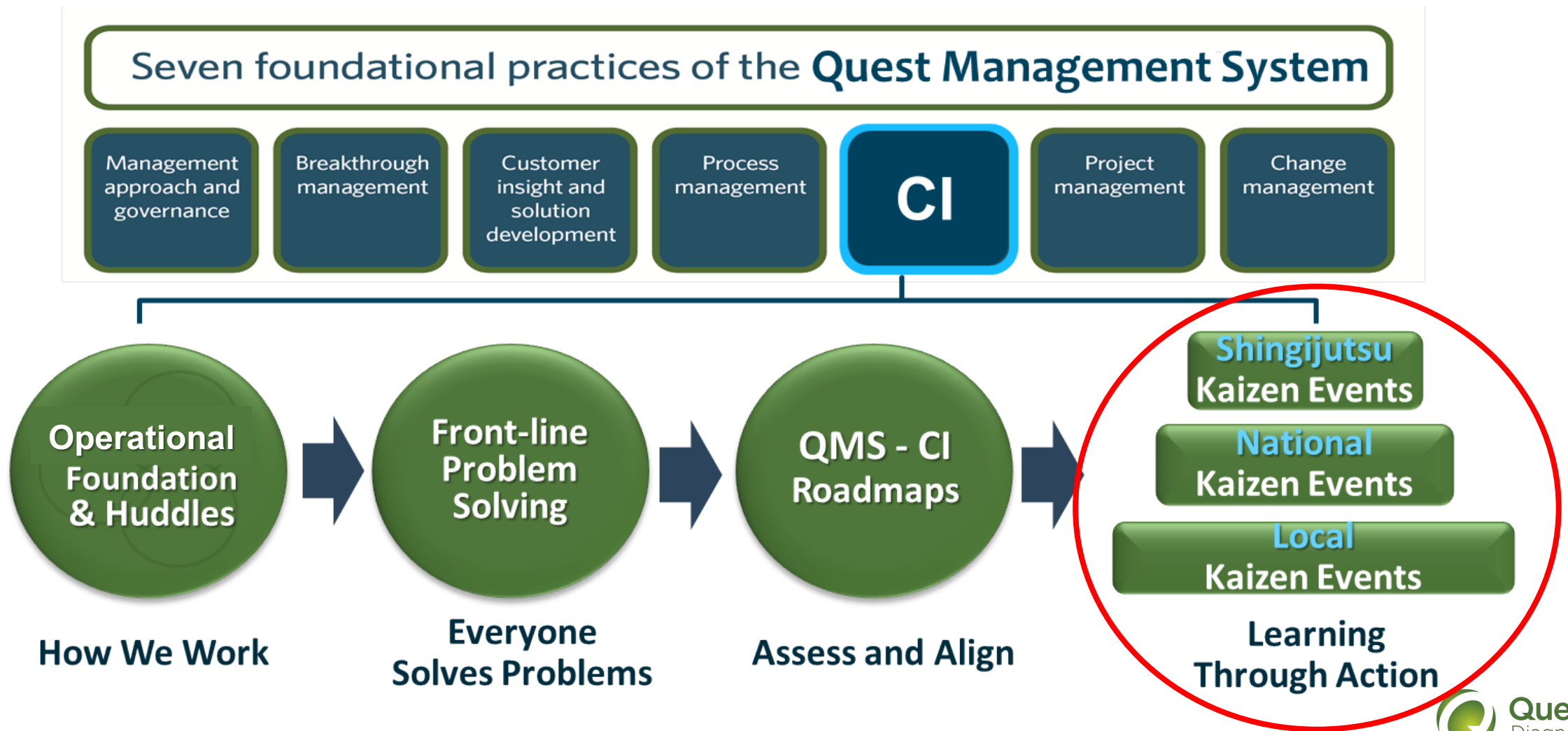
Hoshin 2.0 – Drive Operational Excellence

5 high-priority focus areas we are 100% committed to accomplishing



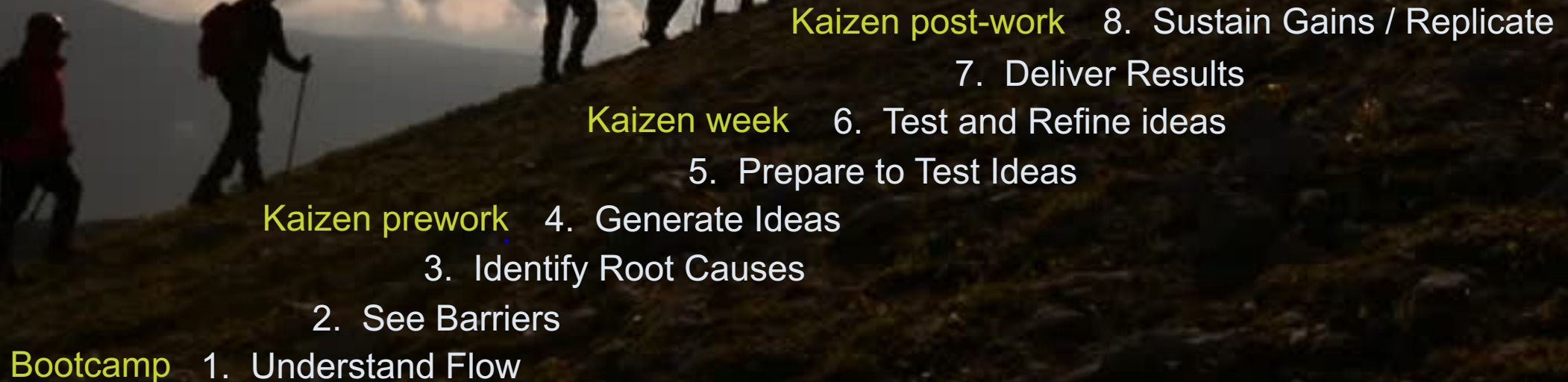
Kaizen: Managing to Learn

Do you have a framework that supports continuous learning and improvement?



National CI Team Mission

- Nurture a learning culture
- Build kaizen capabilities
- Deliver high-impact business results



My background



Kaizen Origins and Preparing for the Journey

Kaizen – Japanese for...

Making improvements based on a deeply held set of principles



Kai

Means to change, to renew, to correct something that is wrong

Zen

Means “good.”

Kaizen – Japanese for...

Making improvements based on a deeply held set of principles



Kaizen Principles

1. Combine vision with action
2. Be the tortoise not the hare
3. Little strokes fell great oaks
4. Don't let perfection get in the way of better
5. Make problems visible
6. Constraints inspire breakthrough thinking
7. Go see for yourself to understand the facts
8. An ounce of prevention is worth a pound of cure
9. Good process, good results
10. Respect for humanity

Origins of Continuous Improvement

Introduced to Toyota in Japan following WWII

“Why not make the work easier and more interesting so people don’t have to sweat? The Toyota style is not to create results by working hard. It’s a system that says there is **no limit to people’s creativity**. People don’t go to Toyota to ‘work.’ They go there to think.”



Taiichi Ohno

Continuous Flow Production

Mastered by Henry Ford 100 years ago

“One of the most significant accomplishments in keeping the prices of Ford products low is the gradual **shortening of the production cycle**. The longer an article is in the process of manufacture and the more it is moved about, the **greater is its ultimate cost**.”

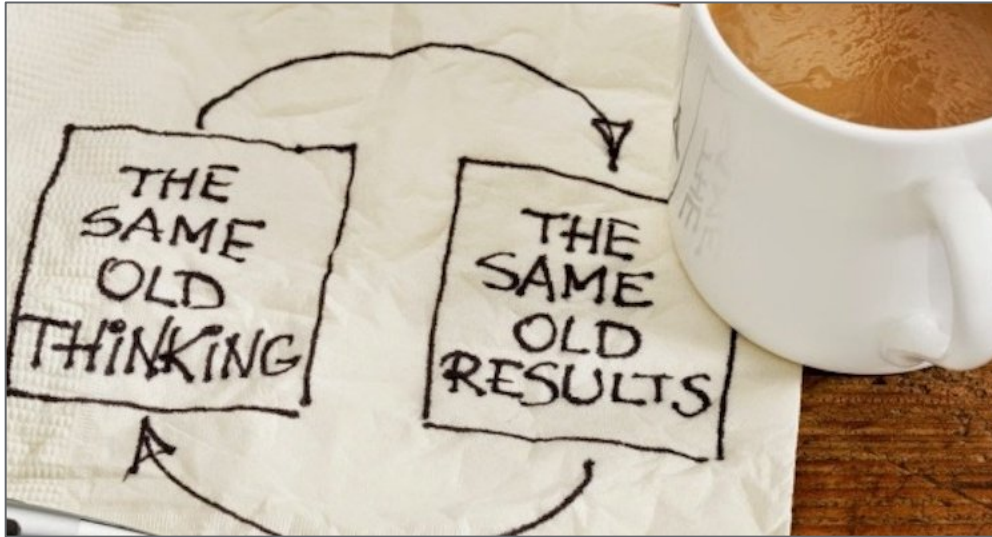


Henry Ford

Understanding and Preparing for Change

Kaizen – learning and discovery in a safe environment

Fear of failure and punishment undermines even the best efforts at improvement

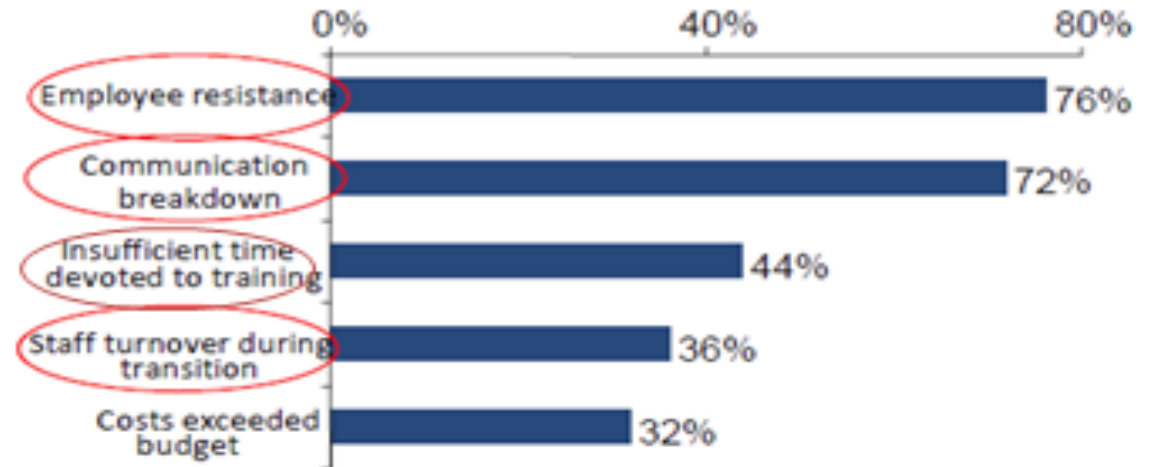


Why Change Management? ...it yields **better business results**

70% of all change initiatives fail to achieve desired outcomes due to:

- Employee resistance
- Communication breakdown
- Insufficient time devoted to training
- Staff turnover during transition
- Costs exceed budget

Obstacles Experienced during Major Organizational Changes



Effectively managing change **minimizes disruption & loss of productivity**, and **reduces time/costs of implementation**

Define the Shared Change Purpose

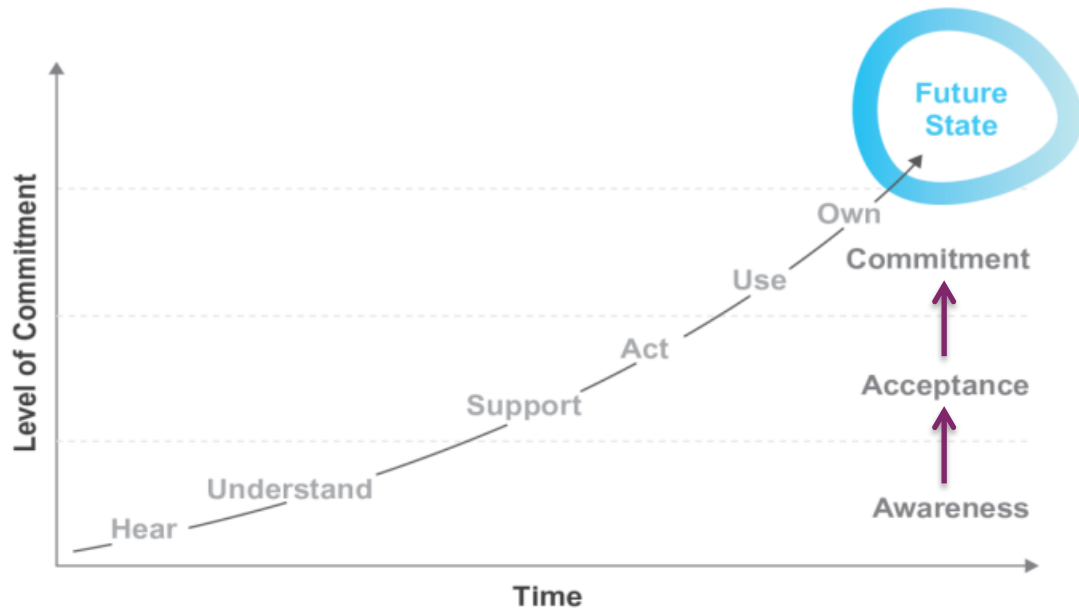
What is changing, Why it's changing, What's needed to change and What it will be like after?

What is the imperative for the change?	What is the Future State Vision?	What do we know about the Solution?
<ul style="list-style-type: none"> • What is the problem or opportunity for the organization that is prompting the change? • Is it now or in the future? • What are the consequences for the organization if the change fails? <p>We can't stay where we are because...</p>	<ul style="list-style-type: none"> • What results do we expect for customers, employees and shareholders? • What will people see that is different when the vision is achieved? • What differences will there be in the way we work? • How will people behave differently? <p>When this change has been successful we will...</p>	<ul style="list-style-type: none"> • What needs to change to achieve the Vision? • How will people need to work differently? • Who are they? • How will people's behaviors change? • What new skills will people need? • How will processes change? • How will structures change? • How will technology change? • What are some of the positive benefits of the change? • What will be different in 3 months? 6 months? 12 months? • How actions are needed from the audience? What can they do to get involved? <p>To achieve this we will...</p>

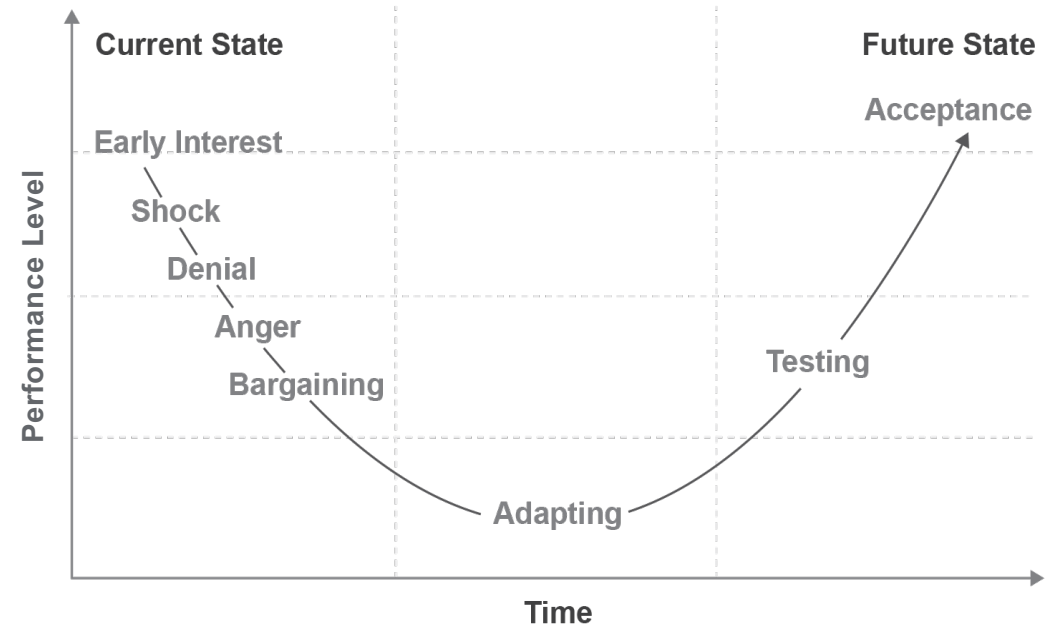
Change Management Purpose

The purpose of Change Management is to reduce the risks and increase the success of the project's implementation to achieve business outcomes. **Change Leaders** have 3 Objectives:

1. Move people from Awareness to Commitment



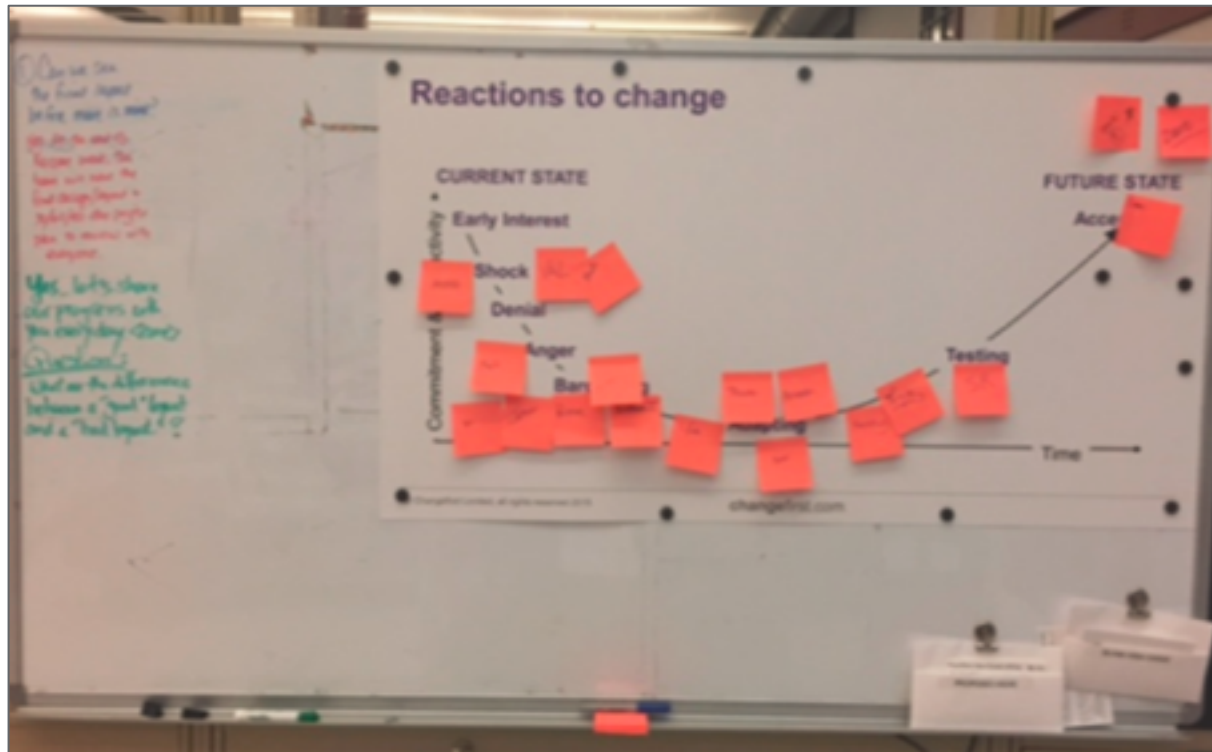
2. Reduce the Impact of Resistance



3. Minimize the Sense of Loss

Change – Isn't it great!

Provide safe opportunities for people to share how they feel about the change that's happening



Stakeholders – who are they and what are their concerns?

Most failures of individual kaizens can be traced back to insufficient stakeholder analysis

Stakeholder Analysis

Stakeholders Names and Roles	Impact (H-M-L)	Commitment Curve		What Do We Need From This Stakeholder?	What Is Important to This Stakeholder?	How Could This Stakeholder Block Our Efforts?	Strategy for Enhancing Stakeholder Support	Who can influence this Stakeholder Group?	What's our best approach to move them along the commitment curve?	Stakeholder Action Plan	
		Where are they Now?	Where do they need to be?							Owner?	Date?

Kaizen Pre-Work: Getting Started

Kaizen – Learning Journey

Why are we here?



We are here today to:

- Inform you about the journey
- Help you plan your trip
- Make sure you have what you need for a successful journey!

Kaizen – Learning Journey

Why are we here?



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Begin by planning – leadership planning and ‘catch-ball’ support the kaizen approach

Long-Term Enterprise Vision

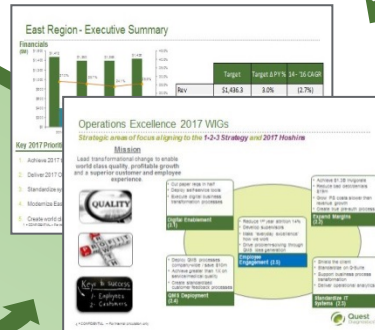


Hoshin Strategies



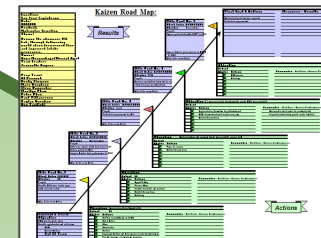
Annually

Business/Function Goals (WIGs)



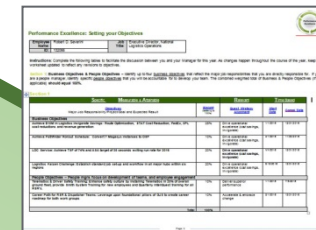
Quarterly

Department Goals / QMS CI Roadmaps



Monthly

Personal Goals



Weekly - Daily

Quest Diagnostics Management Process

Strategic Planning Process

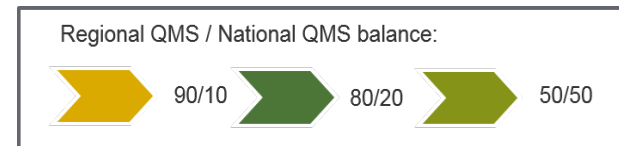
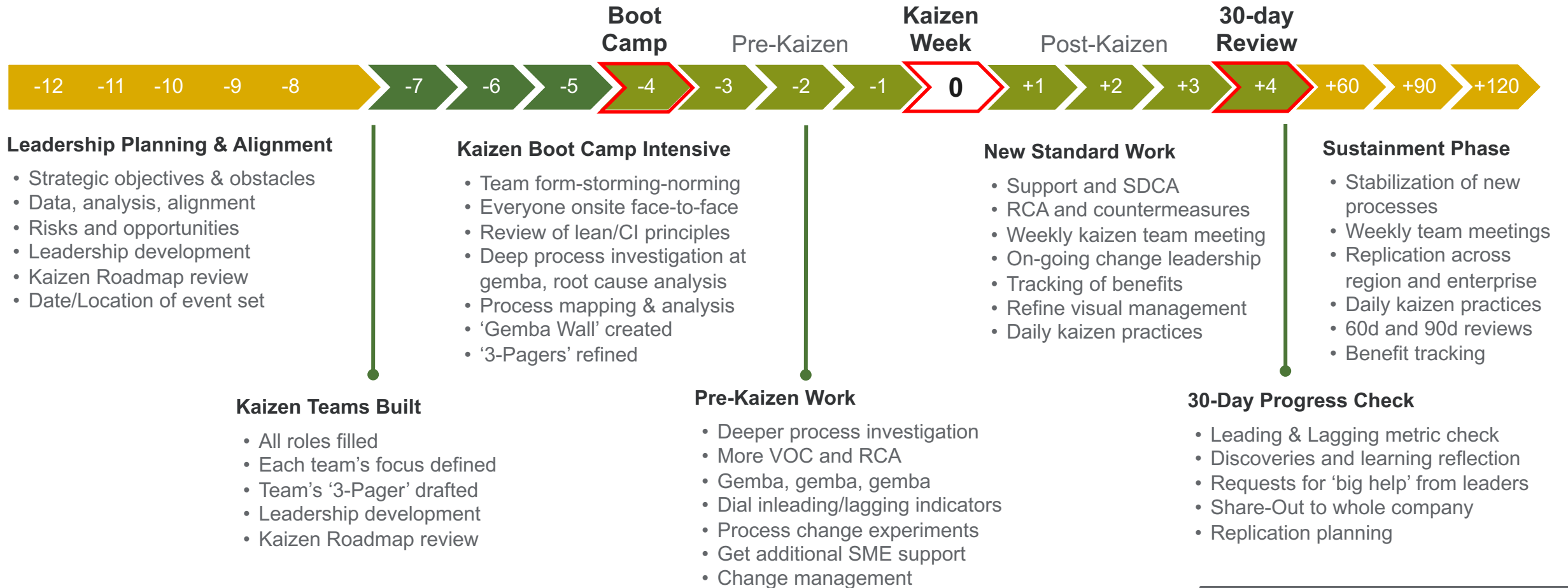
Strategic Deployment Process

Strategic Execution Process



Quest Shin-Kaizen Cycle

Intensive cycle of Central / Regional collaboration and capability building



Your location QMS Shin-Kaizen Challenges

(date)

#	Team Name	Team Leader Process Owner Champion	QMS Resource	Improvement Objective	Top 2 Targets
1		TL: PO: C:			• Aa • bb
2		TL: PO: C:			• Aa • bb
3		TL: PO: C:			• Aa • bb
4		TL: PO: C:			• Aa • bb
5		TL: PO: C:			• Aa • bb
6		TL: PO: C:			• Aa • bb
7		TL: PO: C:			• Aa • bb

Location of your kaizen event

Example

Pittsburgh QMS Shin-Kaizen Challenges

(date)

Date of kaizen event

#	Team Name	Team Leader Process Owner Exec Sponsor	QMS Resource	Improvement Objective	Top 2 Targets
1	Segregate temperature workflow pathways	TL: Richard Smart PO: Susan Jones C: Peter Potts	Spell out all names fully. Be sure to use first and last name	Eliminate TNPs by error proofing sorting of specimens of different temperature types	<ul style="list-style-type: none"> Reduce TAT Eliminate errors
2	Improve tech ops banking process	TL: PO: C:	This is a simple sentence or two explaining your primary reason for doing this kaizen.	Complete 98% specimen banking by 5 am.	<ul style="list-style-type: none"> Reduce OT 70% Reduce volume of banked specimens
3	Improve allergen testing process	TL: PO: C:		Reduce cost of testing by 10%	<ul style="list-style-type: none"> Reduce TAT Eliminate errors
4	Improve flow and efficiency in Referrals	TL: PO: C:		Improve flow and efficiency in Referrals	<ul style="list-style-type: none"> Reduce OT 70% Reduce volume of banked specimens
5	Improve efficiency in mobile phlebotomy dept	TL: PO: C:		Increase contribution margin of 'Monte vista' and 'Sahara' sites to xx%	<ul style="list-style-type: none"> Reduce mobile phleb route CT Eliminate Overtime
6	Improve Hematology TAT	TL: PO: C:	Team name should be the official name – not an abbreviation or 'code-name.' Each team name should have a verb and follow this model:	Reduce pending specimens at 8 am by 50%	<ul style="list-style-type: none"> Reduce OT 70% Reduce volume of banked specimens
7		TL: PO: C:	Reduce X in Dept/Function Y or Improve X and Y in Process/Dept Z		

Keep it simple. Most of this will be Lagging Measures. Use percentages (%) where possible do indicate "how much" you are targeting to improve

Team name should be the official name – not an abbreviation or 'code-name.' Each team name should have a verb and follow this model:

Reduce X in Dept/Function Y or Improve X and Y in Process/Dept Z

Kaizen Team – [Team Name]

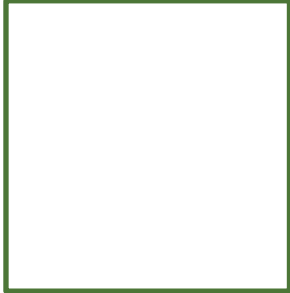
Exec. Sponsor



Jane Doe
VP, ...

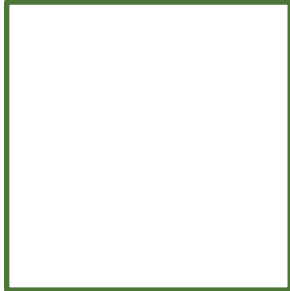
“I fully empower this team to pursue the goals of kaizen in a manner consistent with Quest’s values. I will support all decisions made by the team.”

Champion



Jane Doe
Director,

Process Owner



Jane Doe
Spec. Process. Mgr.

Team Leader



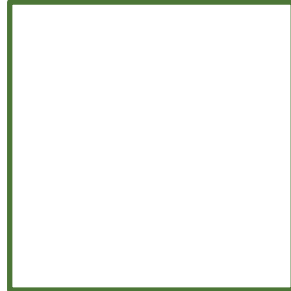
Jane Doe
Spec. Process. Mgr



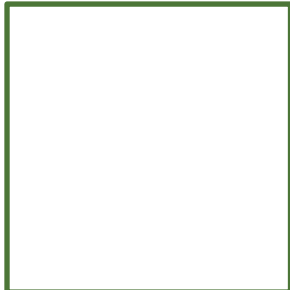
Jane Doe
Spec. Process. Mgr



Jane Doe
Spec. Process. Mgr



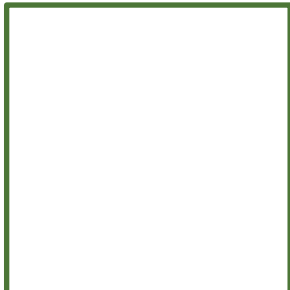
Jane Doe
Spec. Process. Mgr



Jane Doe
Spec. Process. Mgr



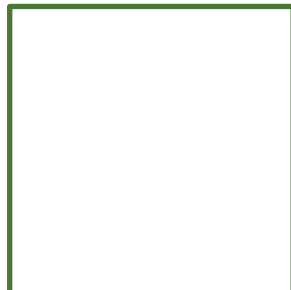
Jane Doe
Spec. Process. Mgr



Jane Doe
Spec. Process. Mgr



Jane Doe
Spec. Process. Mgr



Jane Doe
Spec. Process. Mgr

Kaizen Challenge – [Team Name]

Problem

-
-
-
-

Strategic Aim

Hoshin XXX

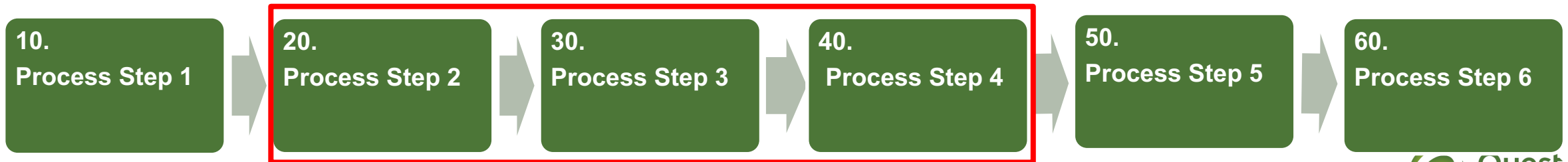
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In Scope

-

Out of Scope

-



Kaizen Challenge – [Team Name]

Must contain a verb...e.g. Do x to y in area z.
Example: Improve TAT by 30% in Histology

Problem

Clear, concise statement containing facts/data (\$, %) about the problem from a process perspective. **Should not include a solution proposal or action plan.** Things to consider, *When did the problem arise? Where does the problem occur? What is the impact of the problem? How do you know?*

Strategic Alignment

Hoshin XXX

These are not your team's targets. (Those are on the Target Sheet.) These are simple statements about what solving your team's problem will do for Quest's strategic objectives.

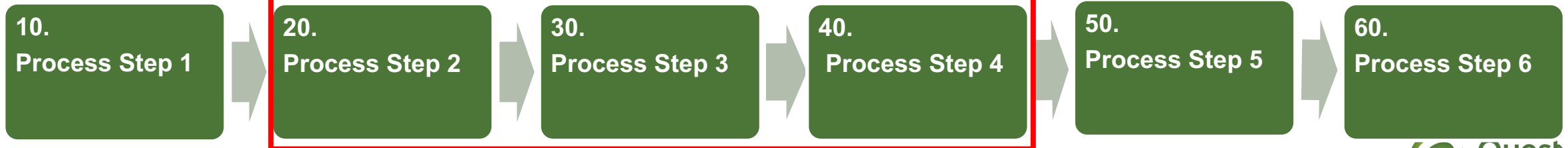
Examples: Increase West Region net revenue; Improve new client close ratio for East Region sales representatives; Improve specimen processor job satisfaction in SE Region, etc.

In Scope

Simple statement: *From process X to process Y*

Out of Scope

Each box should contain the simple name of that process step, e.g. *Decap Specimens*. You should include 1-2 process steps upstream and down stream of your defined scope. Put the red box around process steps where you will focus improvement efforts



Target Sheet – [Team Name]

		Today: 8/7/19			Event week:						
Metric		Unit of Measure	Base-line	Target	M	T	W	Th	SK	% Baseline Improved	% Target Attained
Leading Indicators										#DIV/0!	#DIV/0!
										#DIV/0!	#DIV/0!
										#DIV/0!	#DIV/0!
										#DIV/0!	#DIV/0!
										#DIV/0!	#DIV/0!
Lagging											

Target Sheet – [Team Name]

		Today: 8/7/19			Event week: 6/29/19						
Metric		Unit of Measure	Base-line	Target	M	T	W	Th	SK	% Baseline Improved	% Target Attained
Leading Indicators	Standard Work Documented								Yes	100%	100%
	Orders with NPI# Defects								11	35%	46%
	Orders with Dx Code Defects								62	15%	19%
	Total Billing Error Codes								470	11%	69%
	Total Billing Error Codes (Top 16)	#/day	228	144	545	590	384	470	170	25%	69%
Lagging	Monthly BIP Write-off \$	\$(k)/month									
	Annual BIP \$	\$(M)/year									

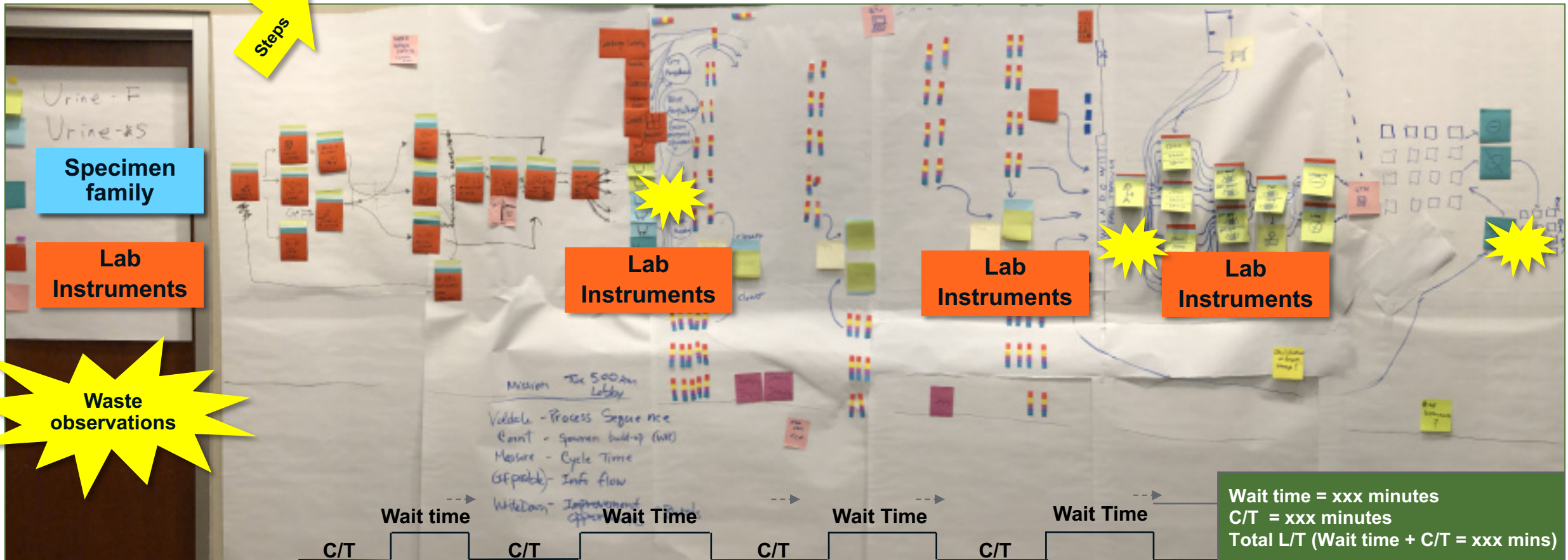
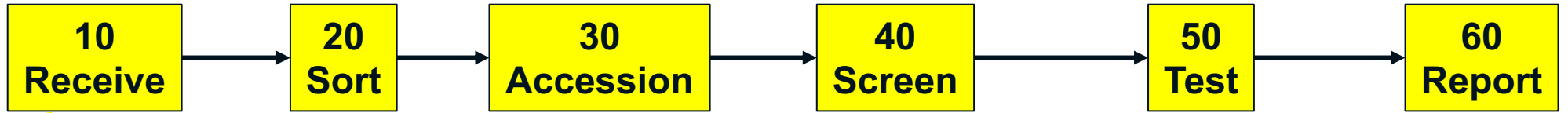
Leading Indicators are the inputs (drivers) which have strong impact on your lagging indicators (results). Leading indicators must be both predictive and influenceable by the team each day during kaizen week (preferably trackable on an hour-by-hour basis). Good leading indicators measure actions or behaviors aimed at eliminating root causes of problems.

Example: # of specimens received at the lab by 6:00pm (in order to improve test TAT – lagging indicator)

Lagging Indicators are the outputs (results) you are ultimately trying to improve. These are your true goals. If you have defined good leading indicators you will *eventually* (end of the month or quarter) see these get better. Lagging measures are typically Tier 1 metrics, bottom line financial targets, test TAT and other strategic success measures.

Material and Information Flow diagram

Visualizing the flow of value through the lab



Kaizen Events – Behavior matters

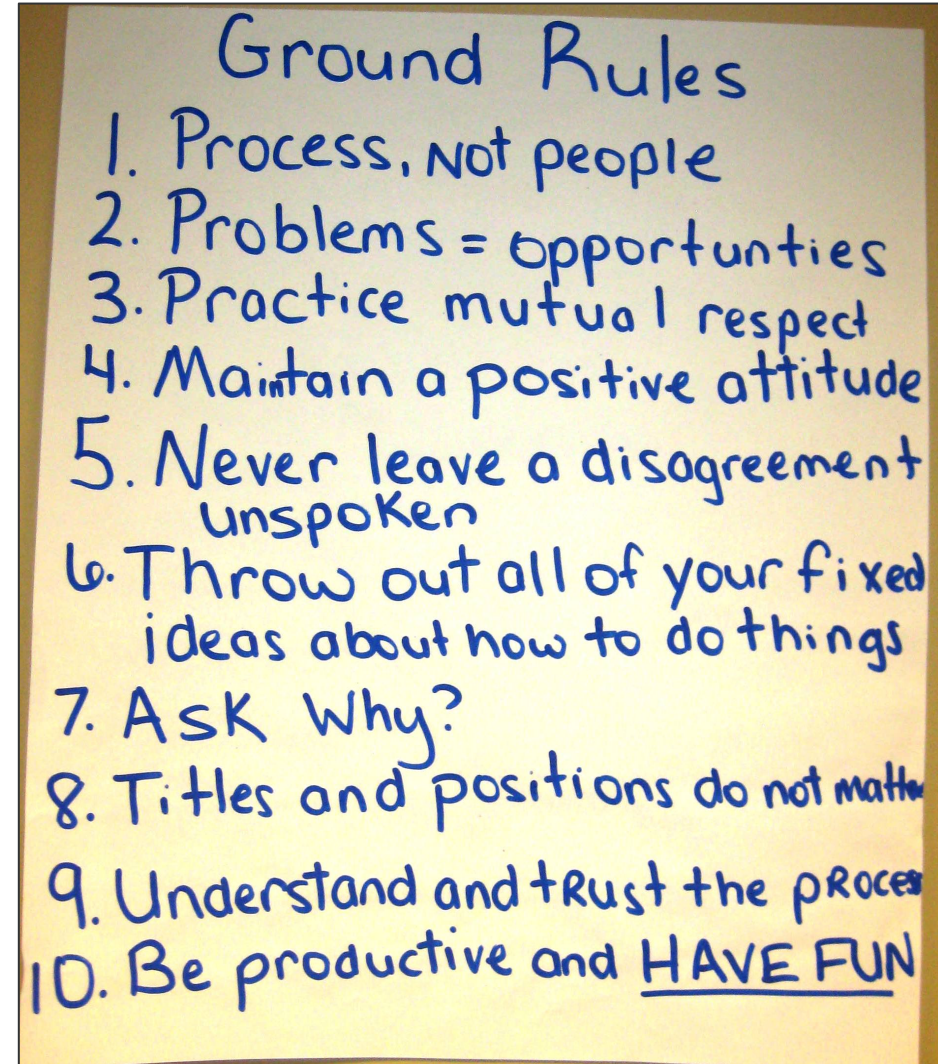
Behavior is the strongest evidence of our mindset

TEAM GAMES AT CLEAR SPRINGS SCHOOL ARE
"FUN, SAFE AND FAIR FOR ALL"

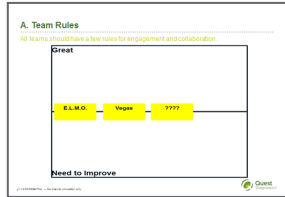
Someone that is showing good sportsmanship looks like this:

1. They are HONEST, always telling the truth
2. Follows the rules of the game
3. Includes everyone
4. Uses respectful language
5. Shows kindness
6. Praises others
7. Encourages all players, no matter what team they are on
8. Isn't a bragger or show boater
9. Is a good role model to their peers
10. When ending the game, shakes hands with opponent
11. Shows respect and kindness to fellow players-whether they win or lose
12. Solve disagreements with rock, paper, scissors
13. Never laughs at others
14. Plays with everyone, never excludes others
15. Shares the ball, always keeping the ball in play
16. Apologize to someone if you show bad sportsmanship
*When you apologize remember to look them in their eyes and tell them what you are apologizing for. A good idea would be to do something nice for the person you offended.

Most important: NO SCORING- if you had fun you won!



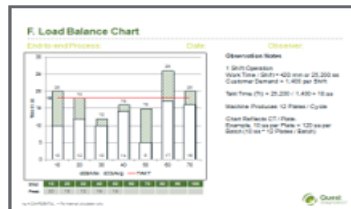
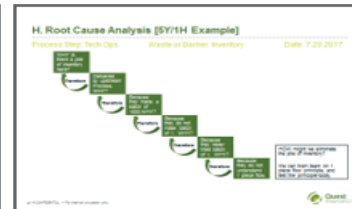
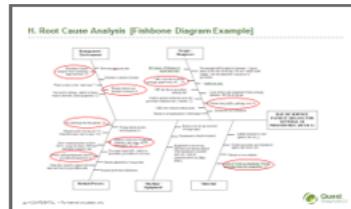
Pre-Kaizen Process Analysis Package (from Kaizen Boot Camp)



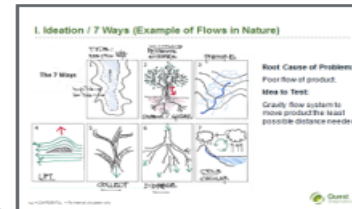
Team Rules
Guides the team's working sessions throughout learning experience.



Process Analysis
Vital for teams to deeply understand the current process targeted for kaizen.

Creative Innovation
So teams can generate great ideas to test which drive breakthroughs in kaizen week.



Keep iterating and updating until shin-kaizen week

Current / Target Summary
Provides clear direction for kaizen, root causes, ideas for improvement and testing.



Kaizen Week – What you'll need to be prepared

Each document is evidence of the learning experience and current thresholds of a kaizen team



Evidence of learning & discovery for kaizen week

1. Cross-functional team with defined roles and responsibilities
2. Kaizen '3-Pager' (Team Roster, Charter, Target Sheet)
3. Voice-of-Customer inputs
4. SIPOC+R
5. 8 Wastes analysis
6. Material and Information Diagram (M&I Dia)
7. Pareto diagrams
8. Fishbone analysis and 5 Whys
9. Process cycle time studies
10. Yamazumi chart of work in focus area
11. Stand work combination chart of work in focus area

Shin-kaizen Week – typical rhythm

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Overview of Key events	Gemba Walk & Team Dinner	Sensei review and deep dive. Test process improvements, simulate and evaluate ideas	Try-storming of new ideas, iterate, test, Simulate, and Evaluate Ideas	Refine solution approaches process improvement Ideas. Select final ideas and pilot implementation	Pilot experiments continued & implement new standard work; analyze benefits	Report-out presentation and celebration; Team Photo
Morning		8-9a : Kick-off 9-10a: Sensei Kaizen training After 10a: Teams @ Kaizen	Teams @ Kaizen	Teams @ Kaizen	Teams @ Kaizen T-shirts distribution	8-9:40a: Report-out 10:00-10:30a: Team Photos 11:30a clean up and adjourn
Afternoon / Evening	3-5p: Gemba Walk with Sensei Attendees: Kaizen Team leaders, Exec Sponsors, Local site leadership, Region RLT members 5-5:30p Transit time to Dinner location 5:30-7:30p Team Dinner Attendees: Same as Gemba walk	Teams @ Kaizen 4-5p: Daily Team leaders meeting Attendees: Sensei, Kaizen Team leaders, Process Owners, Exec Sponsors, Local site leadership, Region RLT members	Teams @ Kaizen 4-5p: Daily Team leaders meeting Attendees: Sensei, Kaizen Team leaders, Process Owners, Exec Sponsors, Local site leadership, Region RLT members	Teams @ Kaizen 4-5p: Daily Team leaders meeting Attendees: Sensei, Kaizen Team leaders, Process Owners, Exec Sponsors, Local site leadership, Region RLT members	Teams @ Kaizen Kaizen Financials impact review 3-5p: Gemba Walk Attendees: Sensei, Kaizen Team leaders, Process Owners, Exec Sponsors, Local site leadership, Region RLT members	

Post-Kaizen sustainment practices

Establish regular cadences of support for standard work, learning & adjustment, teamwork

Effective Weekly Checkpoints

Objectives

- Support and adjust new standard work
- Avoid surprises
- Maintain team work and accountability
- Facilitate and develop QMS-CI competencies
- Sustain alignment between teams and local leadership

30-60-90 Day Reviews

Objectives

- Share and celebrate success with leaders
- Link root cause analysis and countermeasures to results
- Facilitate cross-functional learning
- Sustain alignment between teams, leadership, and broader Quest community

Sustainment: Weekly checkpoints

1

Agenda (mm.dd.yyyy)

T	Team Name	Who	Focus	Start 1:00pm EST
	Welcome & Kick-off	QMS Director: [Name]	Allotted times for team includes Q&A	5 mins
1	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
2	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
3	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
4	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
5	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
6	[Team Name]	TL: [Name] PO: [Name]	[]	5 mins
	Final Comments	QMS or Sponsors	Take-aways, asks, con	

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- Meeting Agenda and Line-up.
- Note: all team names must clearly state their primary PURPOSE.
- Department or process name not adequate.

- Host will open the meeting with the Agenda.
- Each team will provide updates showing progress being made toward accomplishing the targets.
- Each team will have 5 minutes to update with time allowed for coaching feedback from QMS-CI resources.

2

Weekly Team Leader Meeting - Improve Clinical Drug Testing Team 3

1. Targets and Trends

Metric	Unit of Measure	Report Date: 25-May			30 Day		Baseline	% Target Attained
		Baseline	Target	6S	4P	62D		
Lead Time (Access to Screen)	Hours	11	2	10		500%	100%	
# Visual Alerts (Sim. Tech Errors)	#	1	5	5				
Failed Batches	Avg. #/Day	2	0.6	1.5		25%	60%	
Instrument time for repeats	Hours/Day	12	3.6	7		42%	60%	
Productivity	Tests/ITE (Day)	86	383	105		32%	112%	
TAT's 3 Days	%	60%	90%	71%		66%	96%	
Avg. Repeat Rate	%	13%	6%					

2. Completed

Completed	Lessons Learned
Finalized new update SOP for corporate review to reduce CO repeats – Currently testing new procedure before implementation.	Approvals take time. Planning for a 6/18 go-live. Potential to drop re-jectors by 20% on a high volume assay.
Prototype small size bench card created, quick reference for techs during extraction.	Listened to feedback employees to develop
Identified corrections to our [] and have an applications [] on specific parameter	Clearly communicated very important, this process.

3. This and Next Week's Plan of Action

What	Who	When	Why
Review (and finalize) standard work document created during Kaizen. Step-by-Step walkthrough of proper batch failure troubleshooting.	Rich, Nancy, and Technical Team	6/11-Next week	Create proper flow of batch failure process and eliminate unnecessary failures.
Beginning to work on standard work document for Toxicology automation.	3 rd Shift Group Lead, Rich, Scott	6/14-Next week	Develop standard procedure for automation operation.
QC consolidation that began during Kaizen is in process of being completed	Scott, Rich, toxicology leadership	6/11-6/15	Simplify screening process and close cracks.

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Example

3

Implemented Countermeasures– Improve Clinical Drug Testing Team 3

Place pictures of implemented countermeasures here to show how the team is addressing the identified root causes and barriers to meeting target condition.

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Sustainment: 30-60-90 day reviews

1 Kaizen Challenge – [Focus Statement]

Team []

Problem

Hoshin XXX

Strategic Aim

.....

In Scope

.....

Out of Scope

.....

Process Name

10. Process Step 1 → 10. Process Step 2 → 10. Process Step 3 → 10. Process Step 4 → 10. Process Step 5 → 10. Process Step 6

Quest Diagnostics

- What is the heart of the problem?
- Why does it matter?
- What hoshin does it address?

2 Improvement Plan- Improve PSC Order Receiving

Team 1

Today: 6/19/2018 Shin-Kaizen Report Out: 5/25/18

Owner - Follow Up Action	30 Days			60 Days			90 Days		
	est	act	act	est	act	act	est	act	act
Buzanne & Renee - training on best practice guidelines.	●	●	●	●	●	●	●	●	●
Jenn & Gina - Engage client, Quest IT, and BMR vendor to educate and find solutions.	●	●	●	●	●	●	●	●	●
Leonor - provide client education Jenn and Gina.	●	●	●	●	●	●	●	●	●
Dianne - monthly & weekly measure for NPI, Dx and total defects.	●	●	●	●	●	●	●	●	●
Buzanne - Perfect Quality Initiative roll out. Monitor weekly for actionable items related to BIP. Recognition points will be awarded.	●	●	●	●	●	●	●	●	●
Buzanne - Maintain accuracy for standing orders for three client codes. Expand to TOP offenders in NE.	●	●	●	●	●	●	●	●	●
Gina - De liver client letter	●	●	●	●	●	●	●	●	●
Team - VQC	●	●	●	●	●	●	●	●	●
Gina & Trudy Ann - LTO language change to contracts	●	●	●	●	●	●	●	●	●
Trudy Ann & Jeremy - Removal of UPIN	●	●	●	●	●	●	●	●	●

Quest Diagnostics

- Which action items are behind schedule?
- What caused that?
- Has a counter-measure or new plan been made?

3 Target Sheet – Improve PSC Order Receiving

Team 1

Today: 6/18/18

Metric	Unit of Measure	Base-line	Target	5K	30 Day			60 Day			90 Day			Event: 5/25			
					6/1	6/8	6/15	6/22	6/29	7/6	7/13	7/20	7/27	8/3	8/10	8/17	% Target Improved
Standard Work Documented	Yes / No	No	Yes	Yes												100%	100%
Orders with NPI# Defects	#/day	17	4	11												35%	46%
Orders with Dx Code Defects	#/day	73	15	61												15%	19%
Total Billing Error Codes	#/day	528	444	470	5001											11%	69%
Total Billing Error Codes (Top 16)	#/day	228	144	170												25%	69%
Lagging Metrics																	
Monthly BIP Write-off \$	\$(k)/month	\$259	\$218														
Annual BIP \$	\$(M)/year	\$6.2	\$5.2														

Annual Benefits @xx Days \$M

Quest Diagnostics

- What's your biggest success since last report?
- Which 1-2 target(s) are you struggling with most?
- Do you have realistic actions to reach green?

4 Root Cause Analysis – Specimens batched late

Team 1

Run Chart (hourly or daily)

Level 1 Pareto

Level 2 Pareto

Problem: Specimens are being batched late.

1. Why was specimen batched late?

2. Why was specimen not delivered to the lab?

3. Why was specimen not processed by the lab?

4. Why was specimen not processed by the lab?

5. Why was specimen not processed by the lab?

6. Why was specimen not processed by the lab?

7. Why was specimen not processed by the lab?

8. Why was specimen not processed by the lab?

9. Why was specimen not processed by the lab?

10. Why was specimen not processed by the lab?

Quest Diagnostics

- Verbally walk down through your 5 Whys first.
- Is the logic correct? Have you found root cause?
- Do countermeasures really address root cause?

5 Lessons Learned – Marlboro Shin-Kaizen, 90-day Review

Team 1

Today: 6/18/2018

Target	Problem	Root Causes	Countermeasures	Shin-Kaizen Report Out: 5/25/2018	Owner	Reflection
What target was impacted?	Describe 1 problem per row (e.g. "stiff walking too much")	List root causes attached on the Root Cause Analysis slides	List ideas tested and implemented (e.g. "moved printer to point-of-use")	Just 1 person		What went well, not well, and what you learned
Stat Delivery On-Time Rate >90%	Too many STATs delivered to lab after 12:00 midnight	1. No dedicated STATRSR positions 2. Timing of pick-up requests from clients come in late 3. Some clients are more than 1 hour away	1. Create 3 dedicated STATRSR positions 2a. Email a reminder to all clients (Bpm) inquiring about STATs. 2b. Have 2	1. Guy Peters 2a. Z...		

Final 90-day Review only

Quest Diagnostics

- Speak to just 1-2 key lessons you've learned.
- What led to those learnings? Why does it matter?
- How are the lessons valuable to others?

6 90-day Hand-off Evaluation

X: Unsatisfactory Δ: Needs work O: Satisfactory

Team Name

1. Improve PSC Order Receiving

2. Reduce Hematology TAT

3. Increase Clinical Drug TAT

4. Improve ...

5. Test Ser ...

6. Increase Sales & Revenue Growth

Final 90-day Review only

Quest Diagnostics

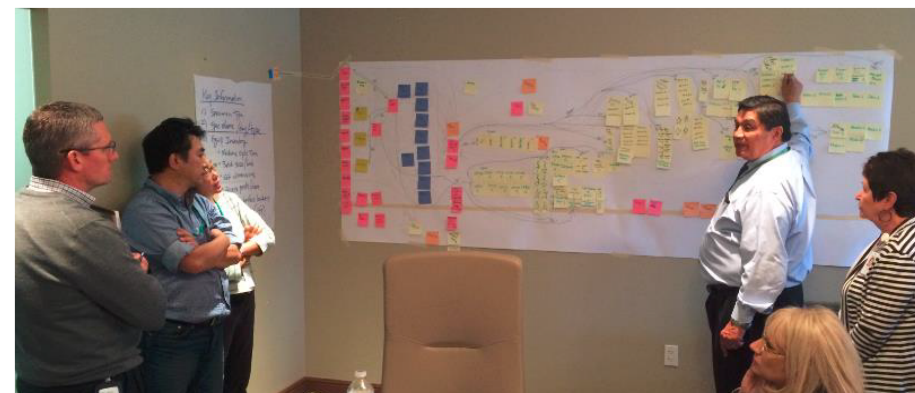
- What are the key conditions the Process Owner needs to know and give special attention to in order to sustain the kaizen improvements?

How Quest is applying and benefitting from kaizen



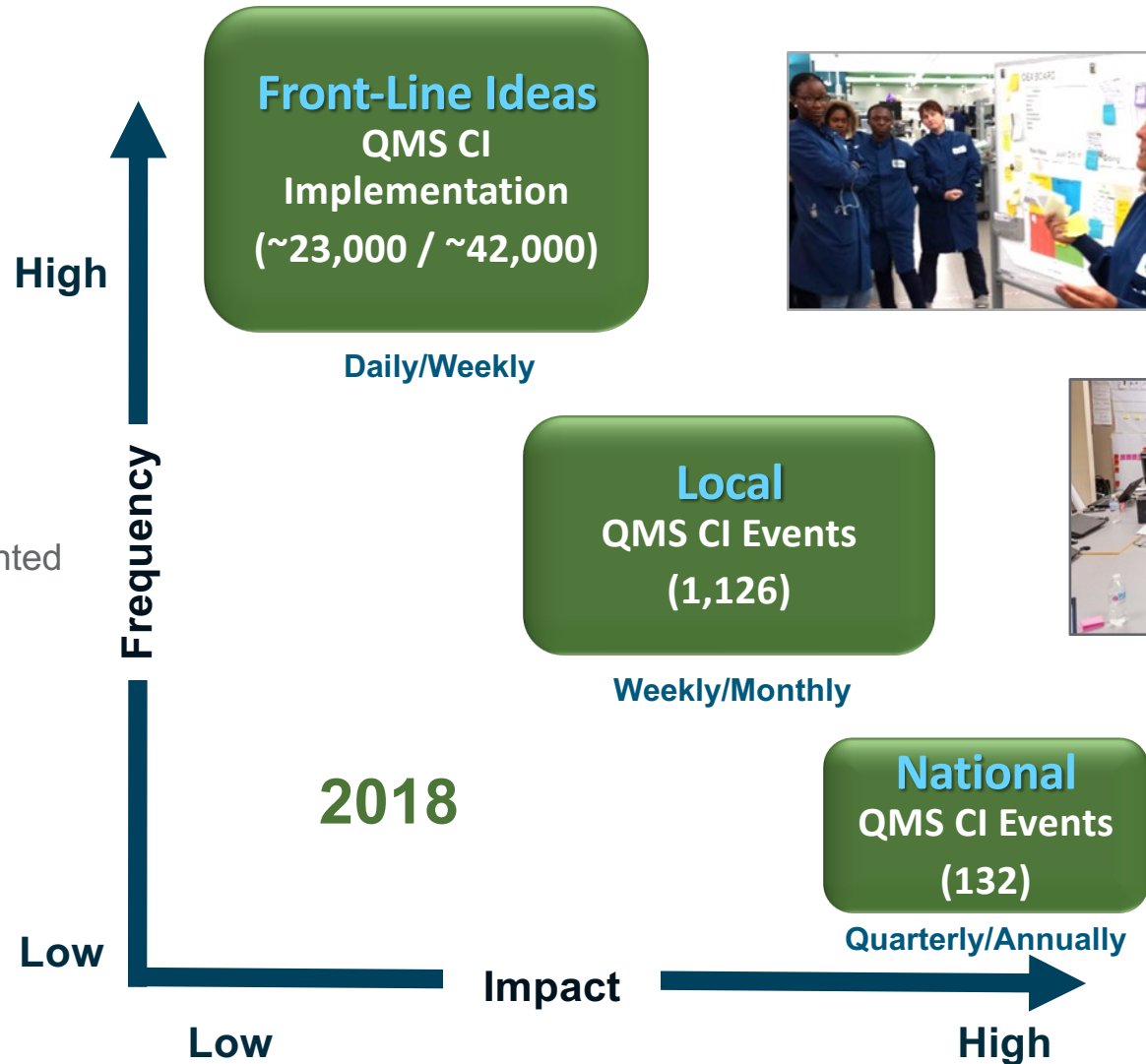
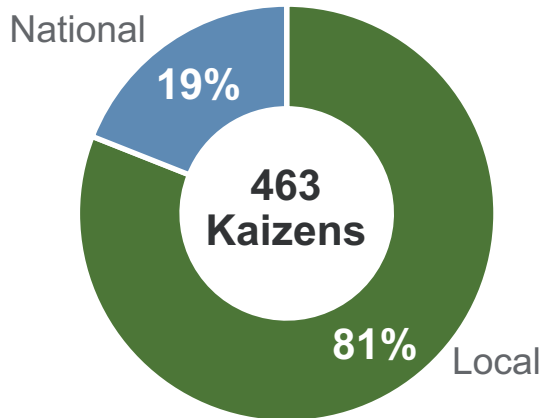
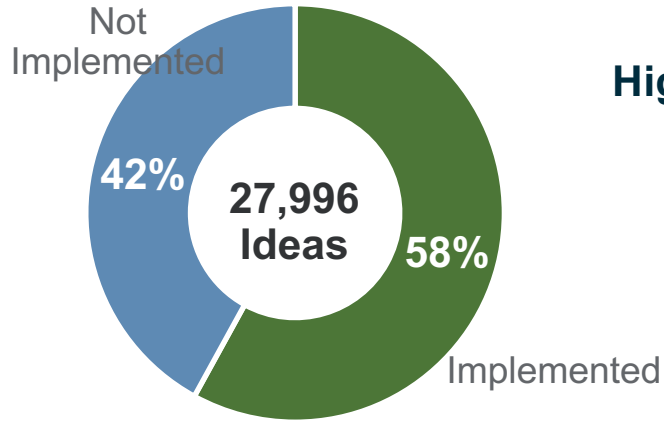
>5,000
employees
with hands-
on kaizen
training

>500
large-scale
QMS-kaizen
events

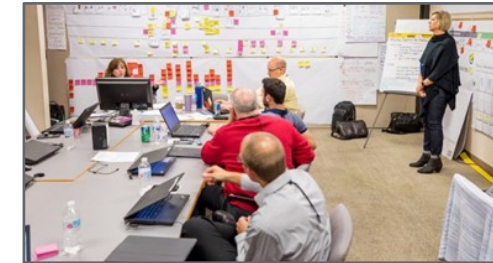


Quest kaizens are driving significant improvements in quality and service and employee engagement

2017 Front-line ideas

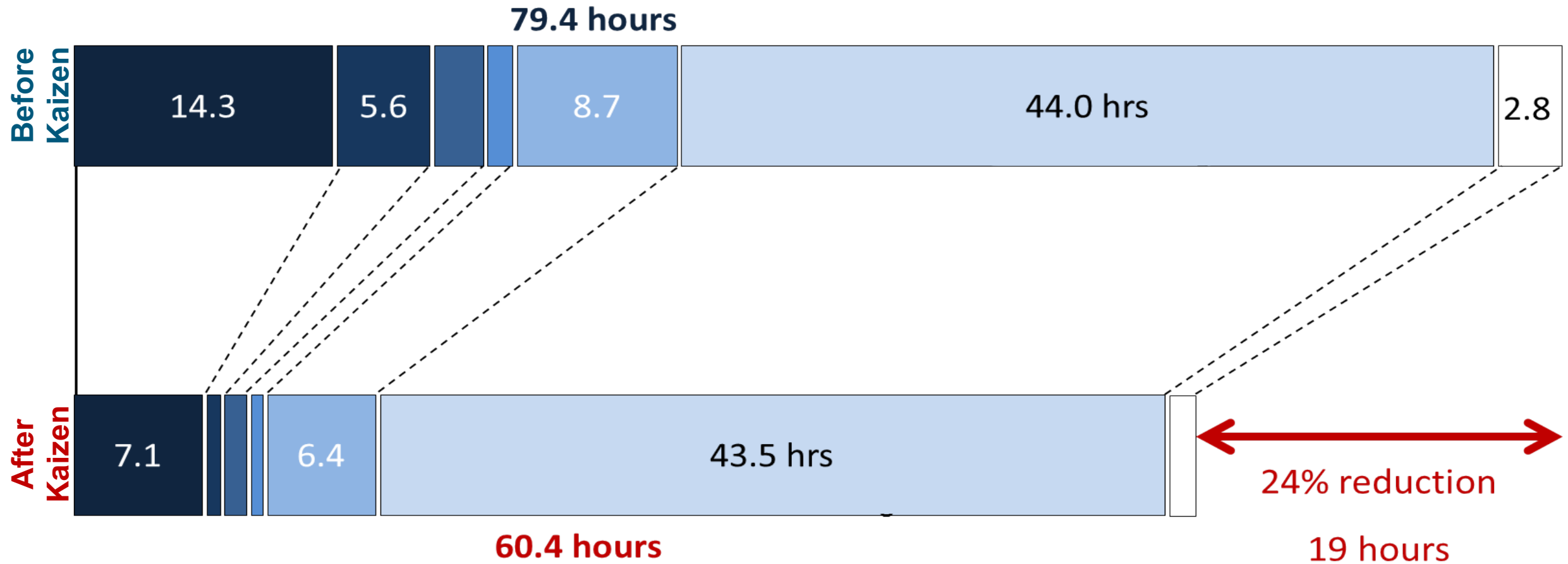


Frontline Idea Card – FICs		Idea # _____
Name _____	Date ___/___/___	
Problem/Waste: _____		
When/where/why does it occur: _____		
Area impacted (circle one): Safety Service Quality Cost/Efficiency		
Idea/Solution: _____		
Owner: _____		
Estimated Completion Date: ___/___/___		
Actual Completion Date: ___/___/___		



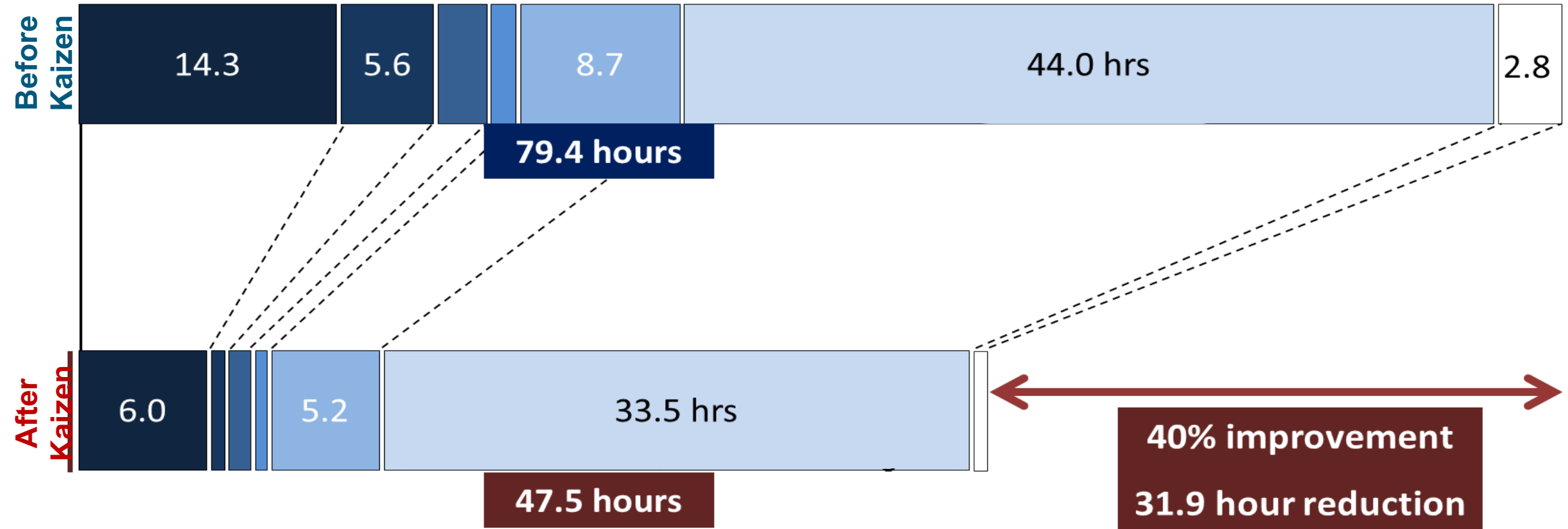
Kaizen – makes work ‘easier, better, faster, cheaper’

Eliminating wastes in and between processes contributes to improved client service



More Kaizen – makes work even ‘easier, better, faster, cheaper’

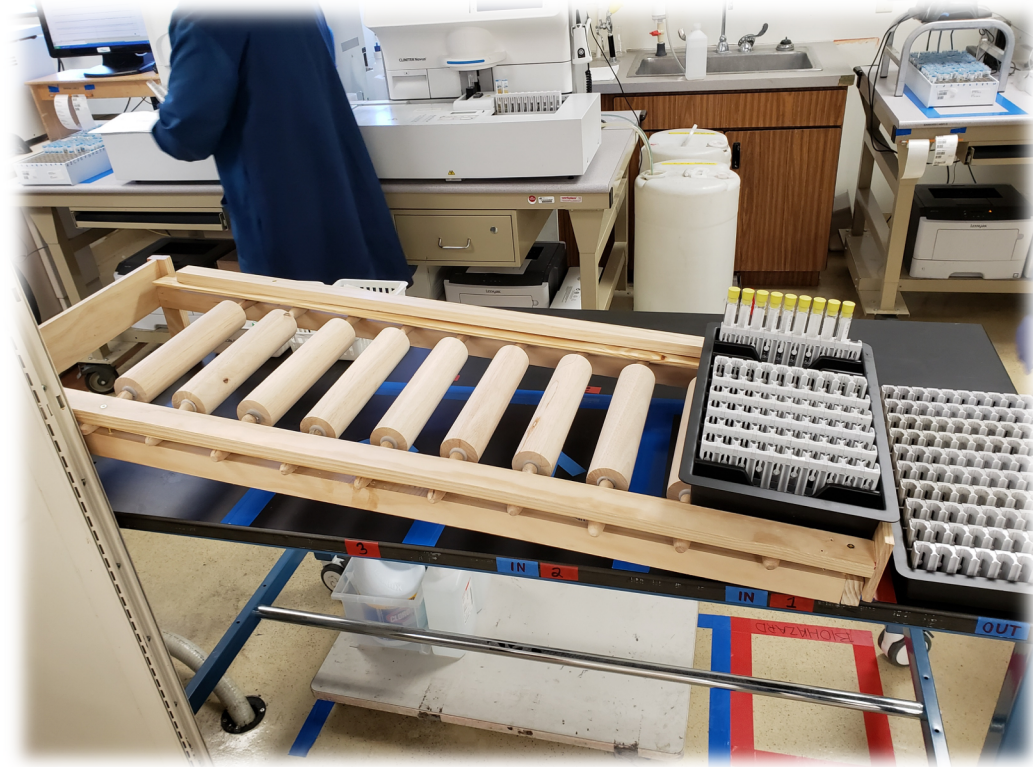
Eliminating wastes in and between processes contributes to improved client service



The First In First Out Specimen Delivery Apparatus

Racked Urine specimens are placed on the right side of the apparatus and then slides to the left. The laboratorian will always pull the rack to the left to ensure the 1st batch of specimens received into the department are loaded on the instrument.

Prototype



Final



Anatomic Pathology Cell Design

Problem

Process 50% more work in the same footprint with only 25% staff increase. 3-day TAT is lower than target
Client first run at xx% versus target of yy%..
Microtomy work cell is 85% same day completion versus 100% goal

Cause

- Lab consolidation
- Wasted space, redundant processes
- Need for more standardization

Actions

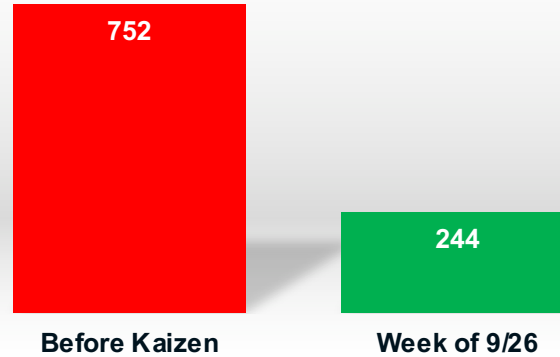
- Design a space that connects the steps of the histology process.
- Improve standardization of staining and cutting protocols.
- Engage frontline staff with change management

Results

- Decreased lag time from embedding to microtomy
- Standardized work product
- Improved quality of microtomy slides
- Created a culture of change and opportunity -empowering a YTD 12% employee promotion rate.

Embedding to Microtomy

Lag time in minutes

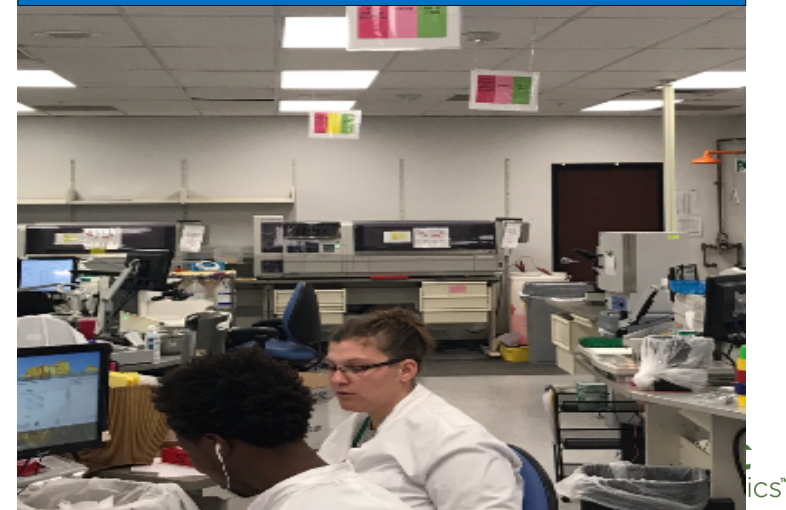


Frontline Employee Engagement



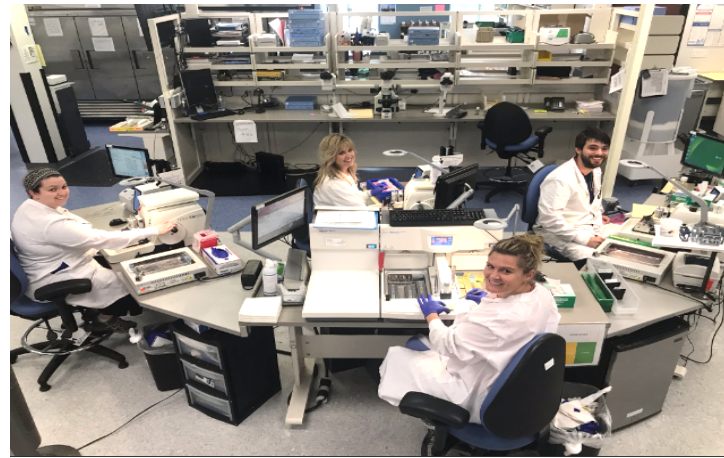
The kaizen team

Empowered Change Culture



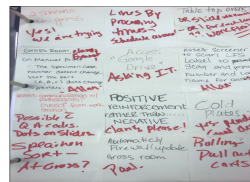
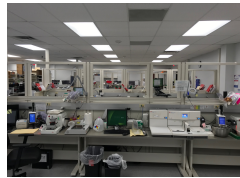
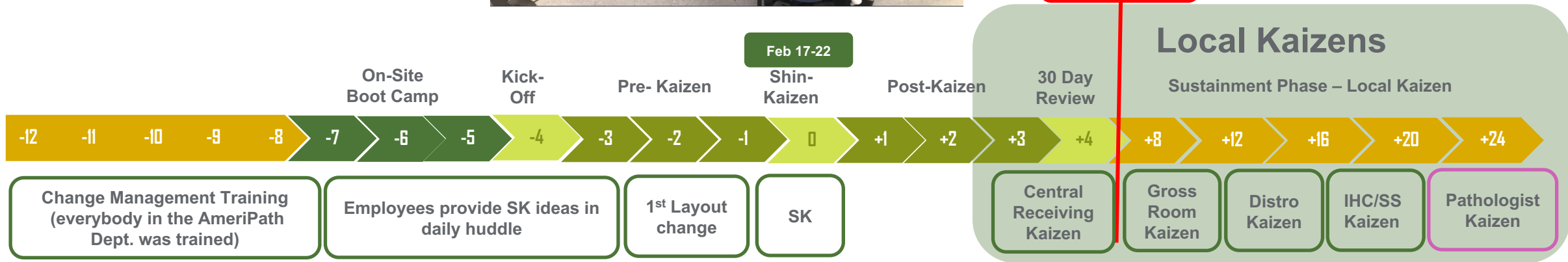
Our Journey

18% increase in productivity across the functional areas



Total savings to date - \$MM

**100% Volume Increase
March 24, 2019**



Questions



Appendix

Personal Imperative – The Connective Tissue of Change

Using the framework outlined below, translate the Shared Change Purpose into a Personal Imperative that you can share with your organization.

- Our group can't keep doing things the same way because _____

- When the change is successful we will be able to _____

- and this means you will be able to do/have/be _____

- In order to accomplish this, we will need to _____
by _____

Flow, Flow, Flow!

Let's practice! Batch of one (1)

Instructions

- ❑ Need a timekeeper.
- ❑ Hand-out 20 sticky notes per team
- ❑ Instruct the 1st team member to pass each batch of one to the next team member. Must be F.I.F.O.
- ❑ Each team member must sign their complete name on each sticky note before passing the batch of one to the next team member
- ❑ Record time that first and last batch is completed by the last team member
- ❑ Report out each team's score



Influencing Change

A few thoughts about influencing change.

Focus and Measure

Leverage Vital Behaviors

Engage the 6 Sources of Influence

1. Personal Motivation
2. Personal Ability
3. Social Motivation
4. Social Ability
5. Structural Motivation
6. Structural Ability



<http://www.youtube.com/watch?v=o-N57TtyToE> (6 minutes)

Grenny, Joseph. Influencer: The New Science of Leading Change, Second Edition (Business Books), McGraw-Hill Education.

Large vs. Small Batch



<https://youtu.be/ciJckWCMvpA> (5 minutes)



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