Safety Climate/Highly Reliable Organizations

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One Question…….

How does your safety program compare to the *“Best Companies?”*

Building the Safety Climate Score

Climate Name: Safety Climate

Goal: % 95

Red Stop: 50

Orange Stop: 75

Yellow Stop: 95

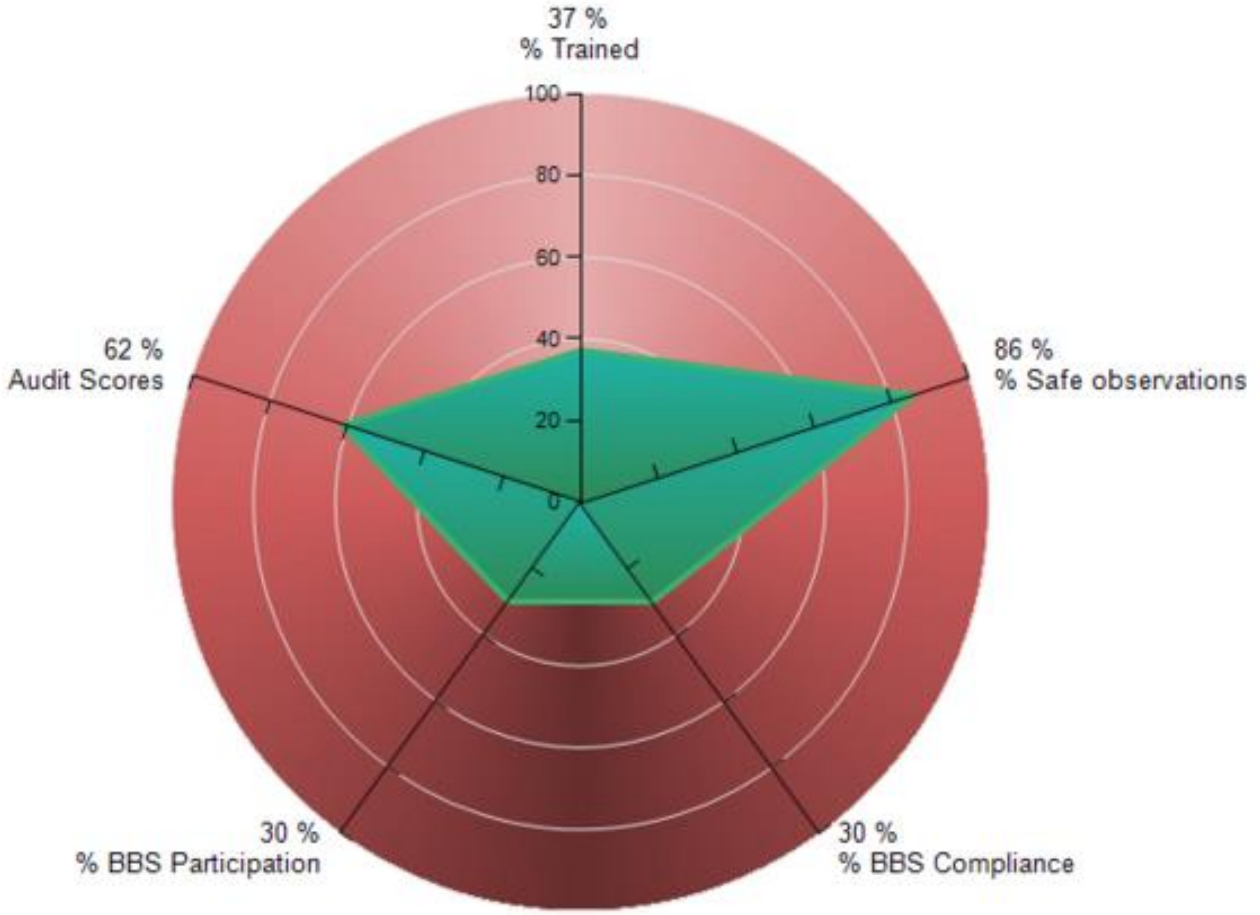
Refresh Preview

Input weight values to enable a score. Input a blank or zero to disable a score. The weight values must add up to 100 total. To use the Auto Weight feature, just put any value greater than zero into the weight box and it will automatically adjust the appropriate weight value.

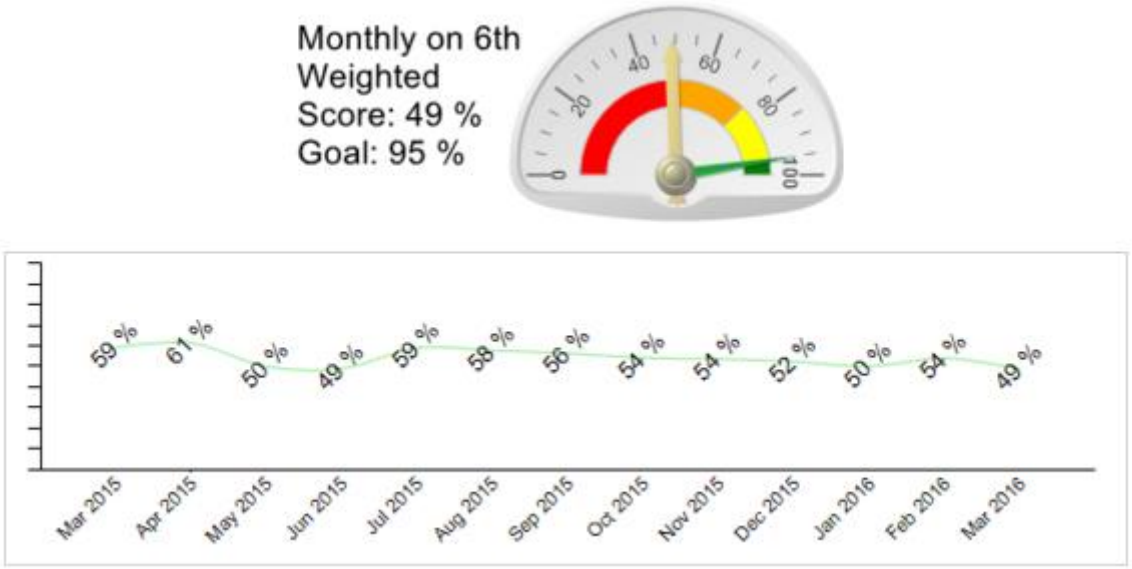
Auto Weight | Make all scores count

Weight	Incident Type	Incident Goal	Name	Desc
20.00			% Trained	Percentage of missed or late classes vs the total number of required classes
			% Corrective Actions closed on time	Percentage of corrective actions closed before or on the target date (For one year past)
20.00			% Safe observations	
20.00			% BBS Compliance	
20.00			% BBS Participation	Percentage of required or volunteered employees doing observations vs expected number of employees
			% Task Reviews Completed	
20.00			Audit Scores	(Compliance)
			% Audits Completed	
			% of incidents related to a task	if 0% of incidents have been linked to a task then no task analysis have been done

Safety Climate



Safety Dashboard



Foundational strengths of a dashboard

- Measures what is important
- Key performance indicators
- Ultimately measures effectiveness

- So before we build a dash board lets talk about what quality building blocks to use.

Building the dashboard review

- Review where you are currently?
  - Risk assessment
  - Safety
    - Assessment survey
  - Culture
    - Evaluate
- Where do you want to be?
  - Specific goals
- How are you going to get there?
  - Actions
- Who is going to be involved?
  - Action items
    - Assignment

Share Information - Sustainability

- **Communication**
  - **Positive results**
    - **Accomplishments**
    - **How do you communicate**
- **Strength in knowledge**
  - **Head in sand otherwise**
- **Keeps safety efforts in the fore front**
- **Safety does not need to be a dirty word**
  - **Make it what you want**
    - **If you only communicate the failures than that's what the perception will be.**

- **What gets measured, gets done!**

Highly Reliable Organizations

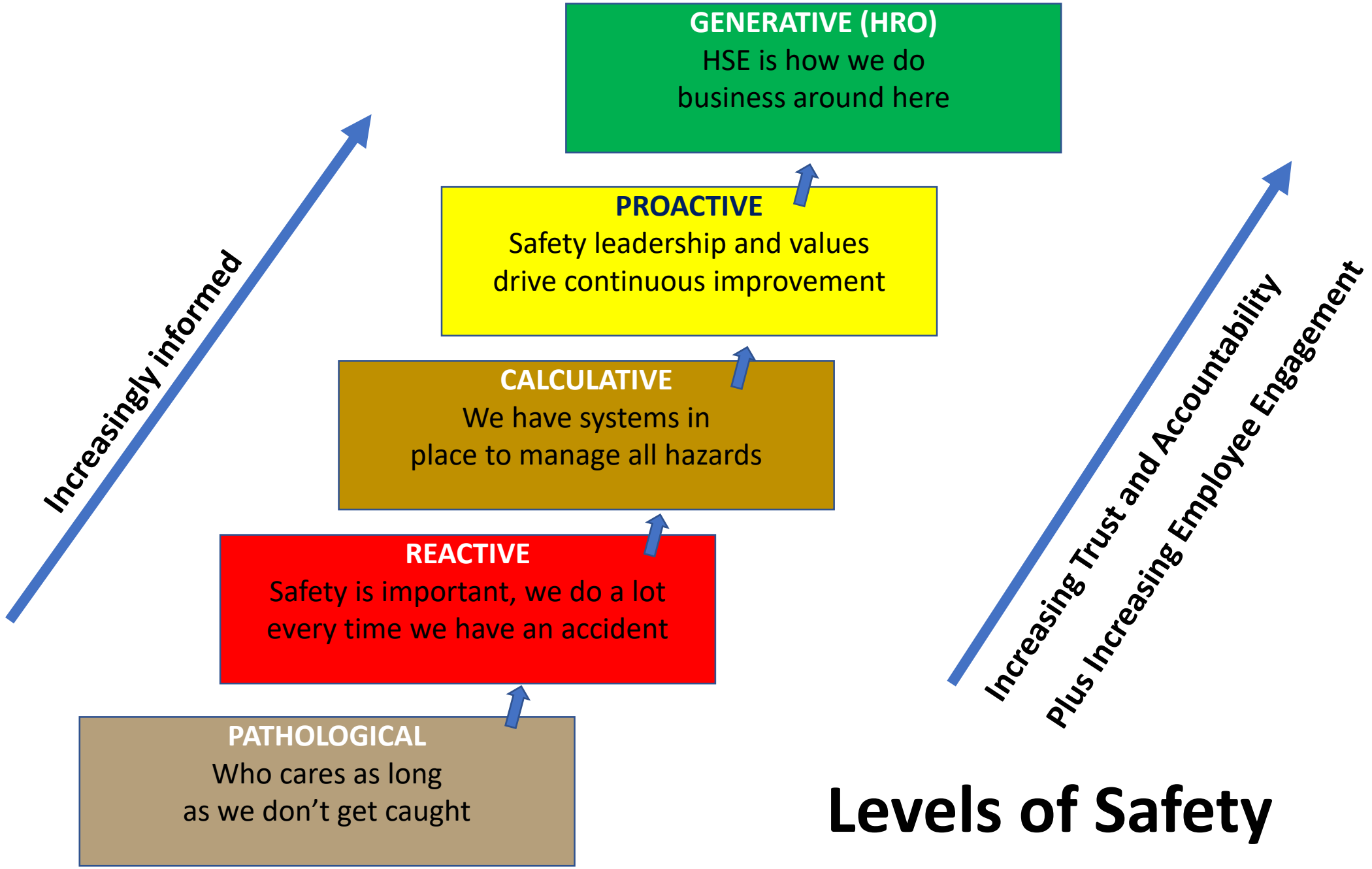
What Are They and What Traits Do They Display?

What Are Highly Reliable Organizations?

High reliability organizations are organizations with systems in place that make them ***exceptionally consistent*** in accomplishing their goals and avoiding potentially catastrophic errors.

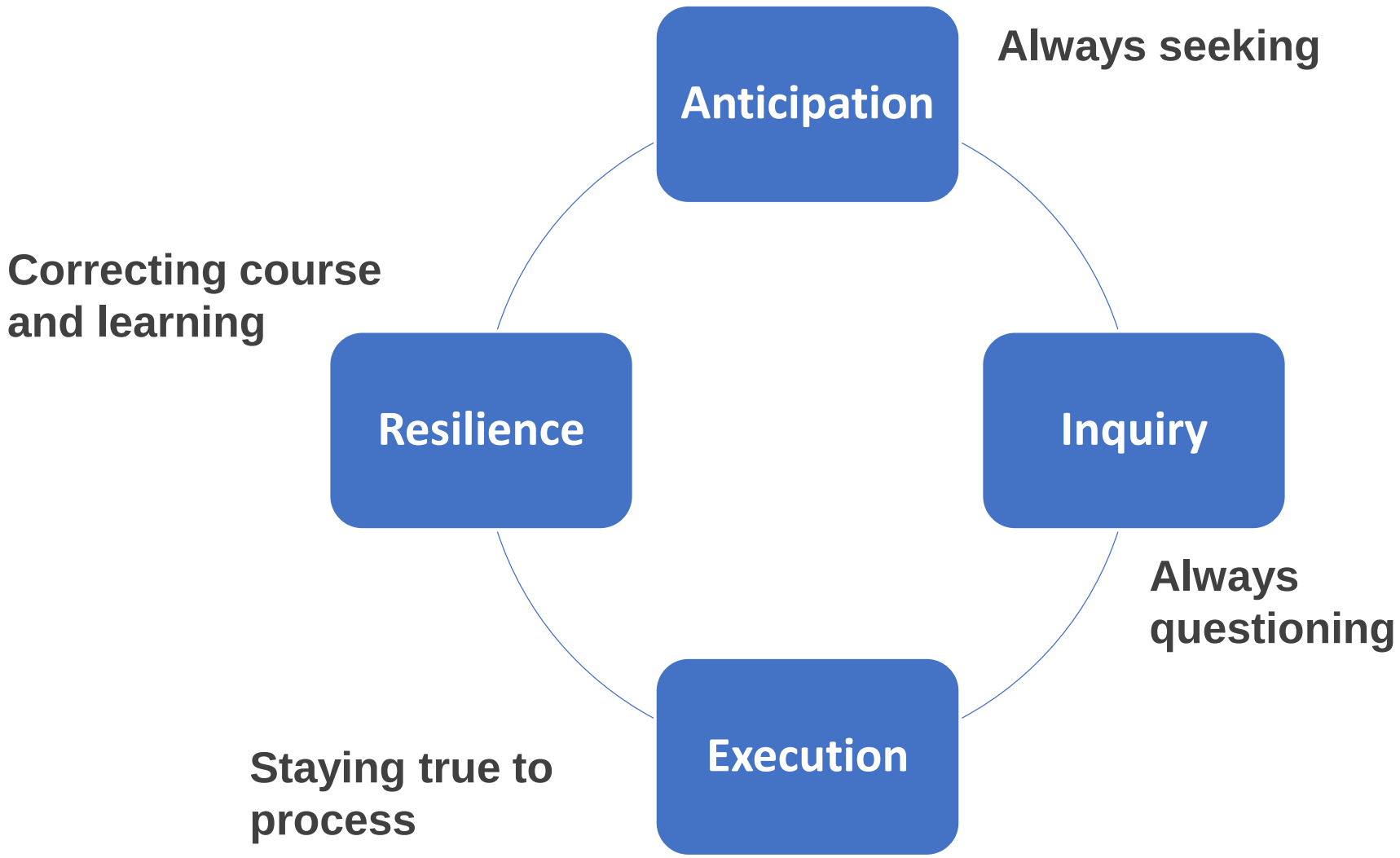
Examples: nuclear plants, airline industry, petro-chemical industry

To do this: Best Practices have to be identified and established, metrics give us the direction for identifying them.



Levels of Safety

Characteristics of HROs: The AIER Model



The Leader's Role In Preventing Catastrophic Events

1. **Anticipation**. Fostering systems and behaviors that are sensitive to "weak signals" that may be indicative of increased risk of catastrophic events.
2. **Inquiry**. Making effective use of information to analyze, understand, and plan mitigation of risks, while making a conscious effort to overcome bias.
3. **Execution**. Monitoring, reinforcing, and verifying program execution, while staying true to the process.
4. **Resilience**. Developing and exercising the ability to react in ways that prevent upset conditions from becoming catastrophic events — and then learning from the experience.

Five Traits of High Reliability Organizations:

1. Sensitivity to operations (systems)
2. Reluctance to oversimplify the reasons for problems
3. Preoccupation with failure
4. Deference to expertise and
5. Resilience.

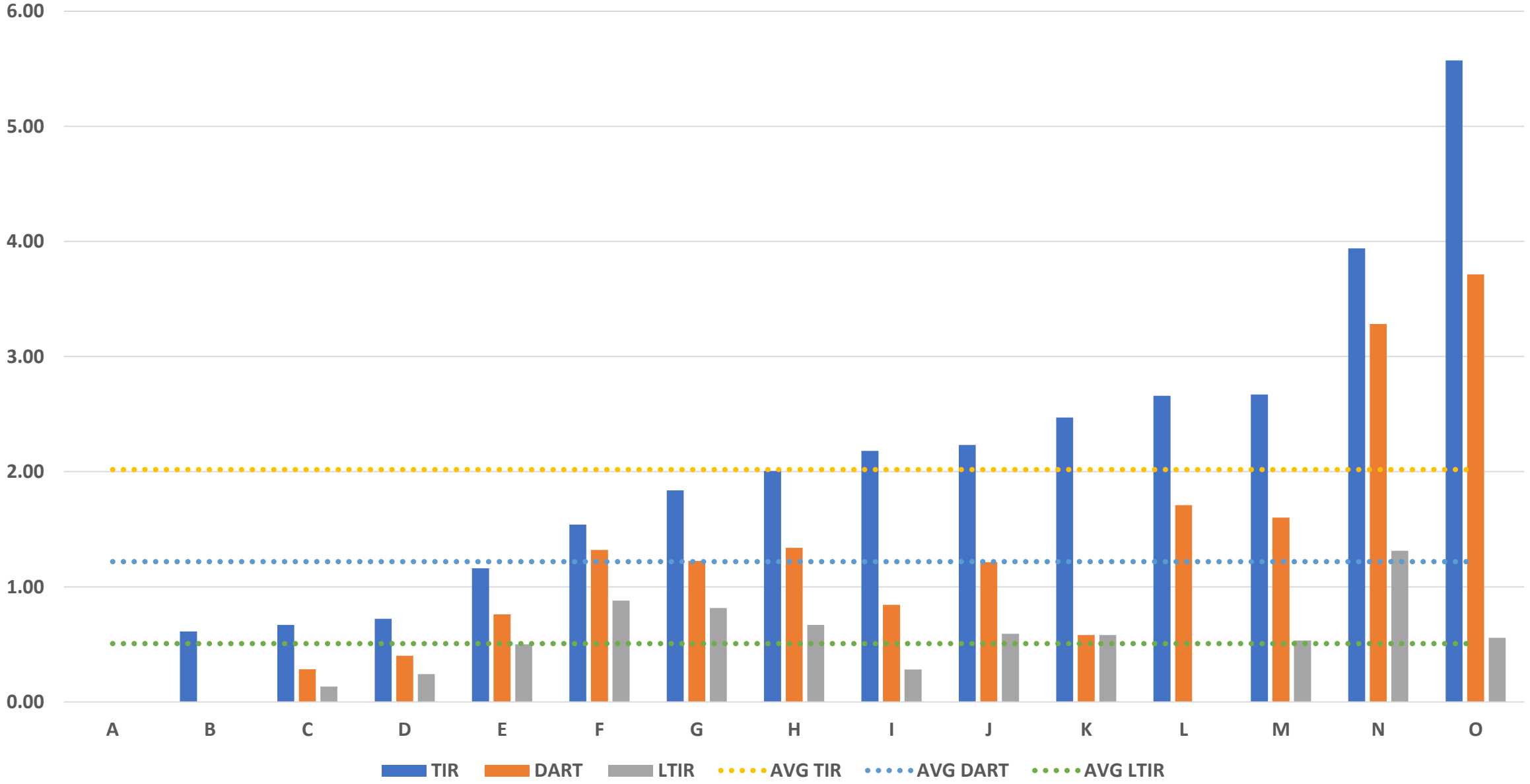
The Value of Safety Management Systems

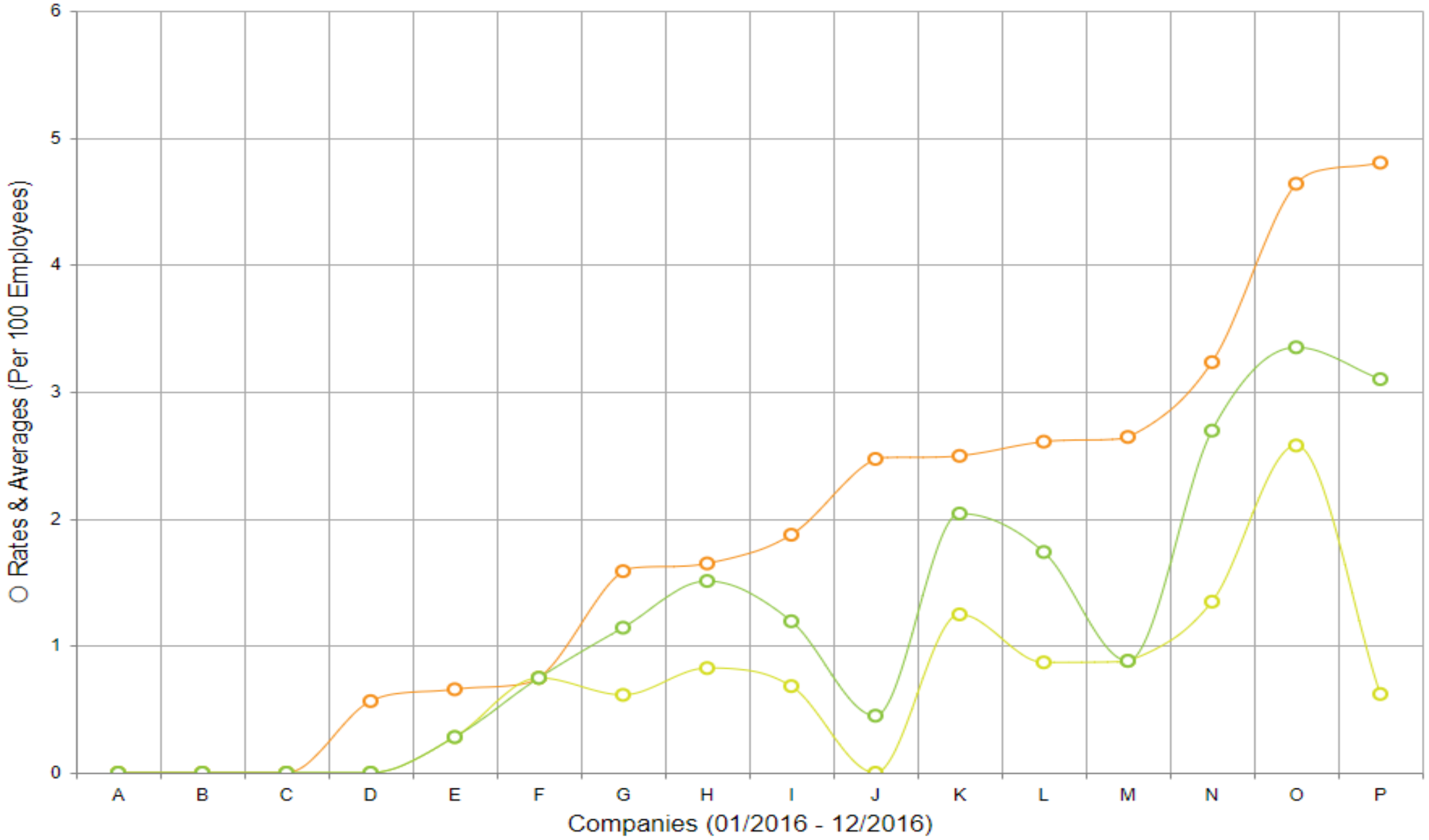
- RCI Safety, (now known as Dekra Insight)
- 600 companies, 3600 locations
- Training (People to classes) 7,058,782
- Incidents 420,000
- Audits 58,179
- Corrective Actions 463,982
- BBS observations… 2,336,656
- RCI Staff:
  - 3 CSPs
  - 2 Retired Corporate Safety Directors
  - 6 programmers
  - Knowledgeable and experienced staff

Challenge: Safety is Hard!

- Organizations have limited time and money resources, where should they start to get the most impact?
- How can they tell if their efforts are successful?
- Why should companies all have to learn the same lessons over and over?
- How can they tell if they are improving?
- How can they set effective goals for injury reduction?

Group Incident Numbers

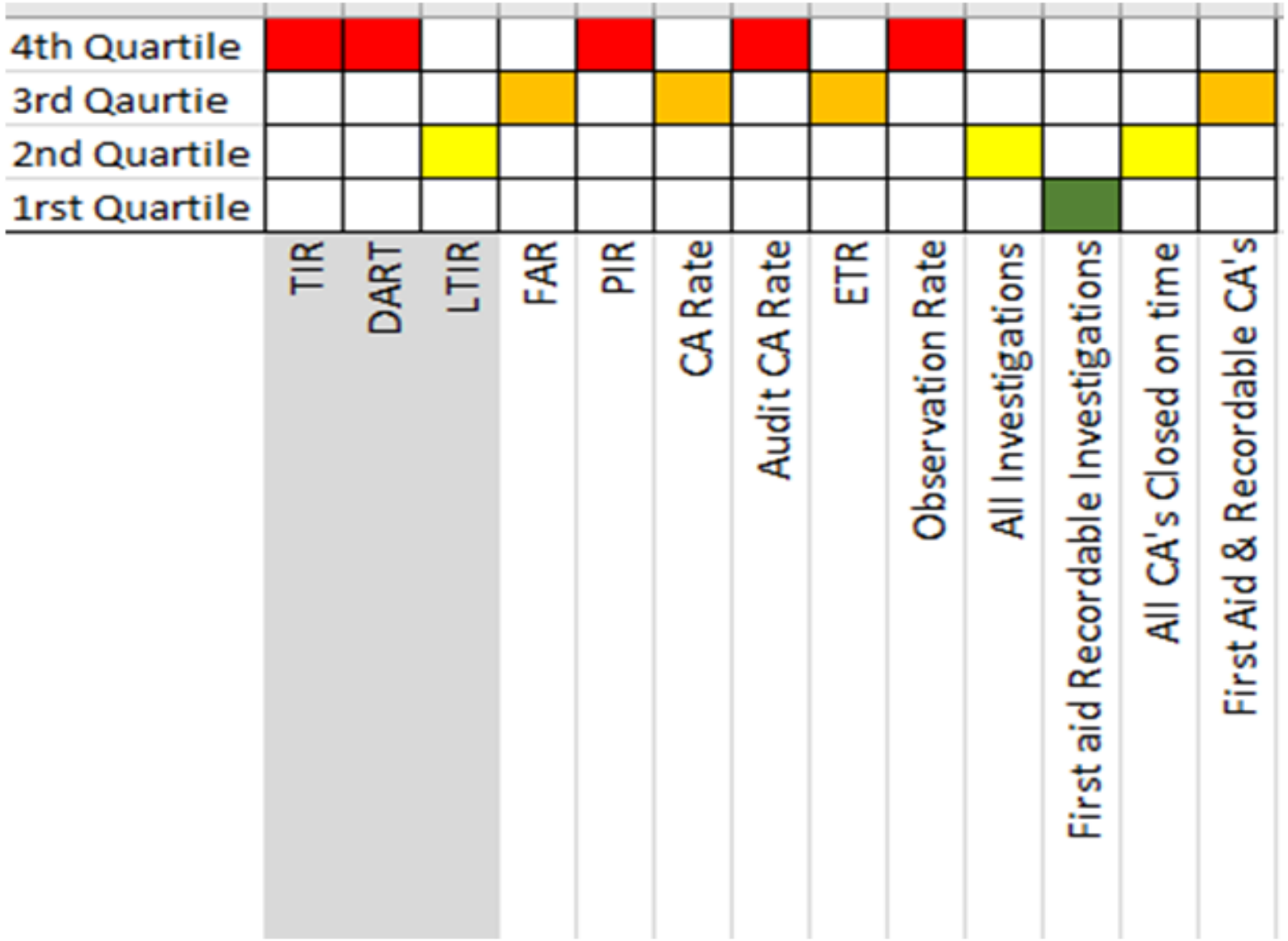



6
5
4
3
2
1
0
○ Rates & Averages (Per 100 Employees)
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Companies (01/2016 - 12/2016)

Heat Map

- Compares performance in specific areas against best in class from bench mark group
- Results are shown in performance quartiles (normalizes different scales)
- Points out improvement areas for organizations
- Tracks performance over time, visualizes improvements or slippage
- Can compare to current best in class or historic best in class (norms)

Benchmarking Snapshot



Heatmap Options

Start Month: January, 2016

End Month: December, 2016

Metrics: 17 items checked

Inactive Locations

Update Heatmap

	1/2016	2/2016	3/2016	4/2016	5/2016	6/2016	7/2016	8/2016	9/2016	10/2016	11/2016	12/2016
Rates - TIR	4	4	4	3	4	4	4	2	2	2	2	2
Rates - LTIR	4	4	4	3	4	4	4	2	2	2	2	2
Rates - DART	4	4	4	3	4	4	4	2	2	2	2	2
Rates - First Aid	3	3	3	3	3	4	4	2	2	2	2	2
Rates - Proactive	3	3	4	3	3	4	3	1	1	1	1	1
Rates - Corrective Action	4	4	4	4	4	4	4	1	1	1	1	1
Rates - CA From Audit	4	4	4	4	4	4	4	1	1	1	1	1
Rates - Observations	3	3	3	3	3	3	3	1	1	1	1	1
Rates - Audits	3	3	3	3	3	3	3	1	1	1	1	1
Rates - Findings	3	3	3	3	3	3	3	1	1	1	1	1
Rates - Employee Training	2	2	2	3	2	2	2	4	4	4	4	4
Rates - Actual Training	2	2	1	2	1	1	2	4	4	4	4	4
Findings Per Audit	1	1	1	1	1	1	1	4	4	3	4	4
% Closed on Time - All	1	2	2	2	2	2	2	1	1	1	4	3
% Closed On Time - First Aid Recordable Invest.	1	1	2	1	2	1	1	1	1	1	3	4
% Closed On Time - First Aid Recordable CAs	1	1	2	1	1	2	1	1	2	1	3	4
% Completed Job Plans	4	4	4	3	3	3	4	3	4	3	4	4

= lowest ranking

Number denotes quartile ranking

Your Web Page Name

http://applications.rci-safety.com

Logo

Company Name

User Name Logout

Home › Performance Insight Dashboard

Metrics Dashboard | Command Center | Quick Entry | Suggestions

Suggestions

This chart would show the expected decrease of the relevant target metric with respect to the adjustment of the correlated metric. It should show a graph fitting a polynomial equation and the suggestion should equal either the global maximum or the global maximum of the derivative, based on a rule set. This guarantees the highest impact before getting into diminishing returns. In most cases, the global maximum will suffice but in cases in which it nears an impossible objective, the derivative can be calculated to find the greatest prospective rate of change.

This would allow the user to visualize the difference in impact as the objective is deviated from.

The chart could be interactive wherein the user drags a vertical line to recalculate the expected impact.

Target Metric

TIR

Projected Impact

High Low

Higher priority

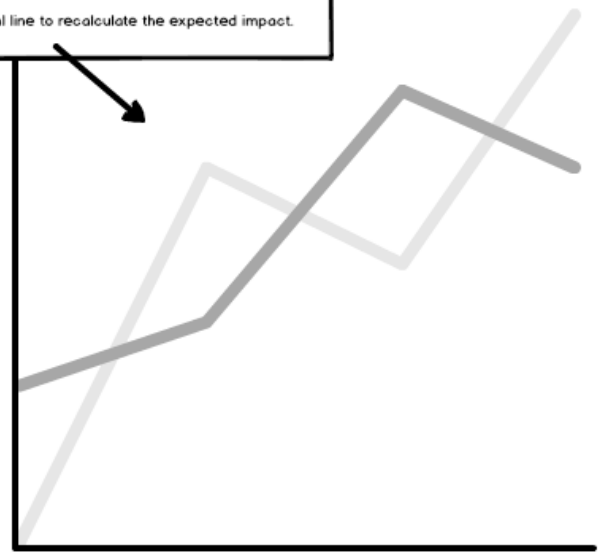
Increase Audits by 20% — Create New Goal

Increase % Compliant Training to 80% — Create New Goal

Increase Time Allotted for Investigations by One Week — Create New Goal

Reduce word count in Unsafes Comments to less than 300 — Create New Goal

Lower priority



Projected Impact:

Stands to reduce TIR to 56 by end of Q3

The projected impact. This would be updated based on the graph setting, target metric, and suggestion hover.

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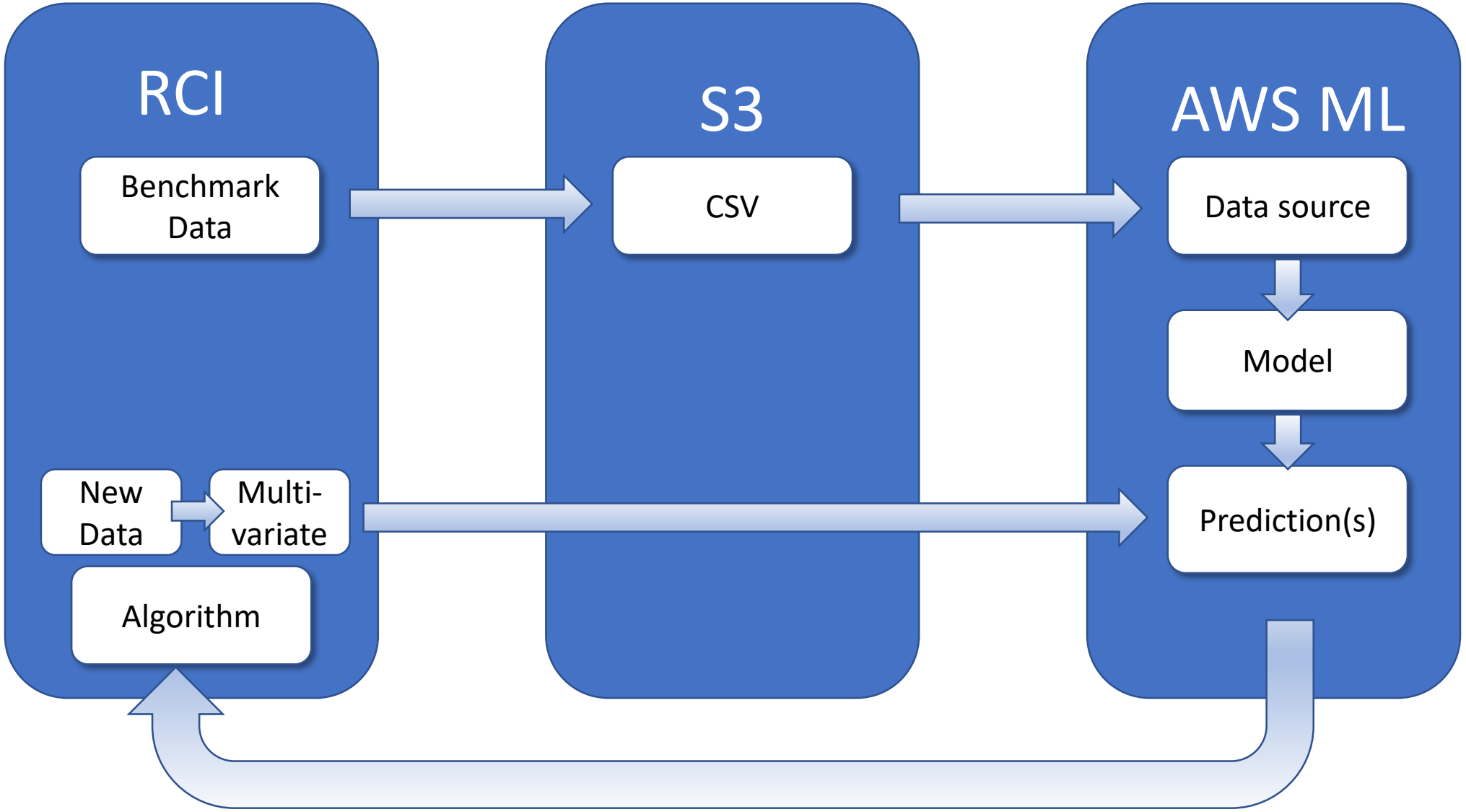
Machine Learning Model



Machine learning and suggestions

- Develop algorithms to identify highest impact improvement areas
- Use machine learning to offer suggested actives to improve performance
- Allow organizations to set “SMART” goals based on learning to develop new KPI’s
- Continuous improvement…. System always learns.

Plan for Implementation

1. Benchmark injury rates against peers to understand current performance
2. Benchmark current efforts against best practices to identify highest impact improvement areas to lower injury rates
3. Use machine learning to suggest and measure activities, help clients develop smart goals and new KPI’s
4. Loop… system learn offering clients continuous improvement

Closing Points

- Exciting potential tool to help manage a company's safety performance.
- Is this the next evolution in safety management?
- Results are based against Best Practices of the best companies.
- Need to have a safety management system and must put valid data into the system, including employee hours.
- All of this is coming from data, not opinions.

Please come see me at the DEKRA Insight booth if you'd like more information.

Thank You!!!