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WEBINAR

Top 7 Metrics to Manage Your Calibration Program

Jay Langlois, L3Harris

Curtis Keller, SIMCO Electronics

Welcome & Housekeeping

Welcome

45-minute webinar (including Q&A)

Recording and slide deck will be emailed to all attendees

Chat box at bottom of screen for capturing questions

Speakers

Curtis Keller

Technical Director & Asia

SIMCO

curtis.keller@simco.com

- 37 years of calibration and quality leadership experience primarily in lives-at-stake industries including Biomedical, Aerospace and Defense.

- Joined SIMCO in 2007. Currently serves as both Technical Operations Director for all SIMCO and Area Director for SIMCO's Asia operations. Previously with Intermountain Metrology Services, Stabro Labs and the U.S. Marine Corps

Introduction

Today we'll cover:

Top 7 calibration metrics

Tailoring metrics to your needs

Leveraging metrics for continuous improvement

Introduction

Irony:

We're experts in the science of measurement.

Yet more than 50% of calibration pros struggle with defining and tracking the metrics that matter to their program.

Speakers

Jay Langlois

Manager of Calibration & Asset Mgmt

L3Harris

jay.w.langlois@L3Harris.com

- 26 years of quality, calibration, and manufacturing leadership experience within Aerospace, Automotive, Semiconductor and Medical industries.

- Joined L3 Communication (now L3Harris) in 2010. Manages the Continuous Improvement and Quality Records departments and leads the corporate Calibration Interdivisional Services Team.

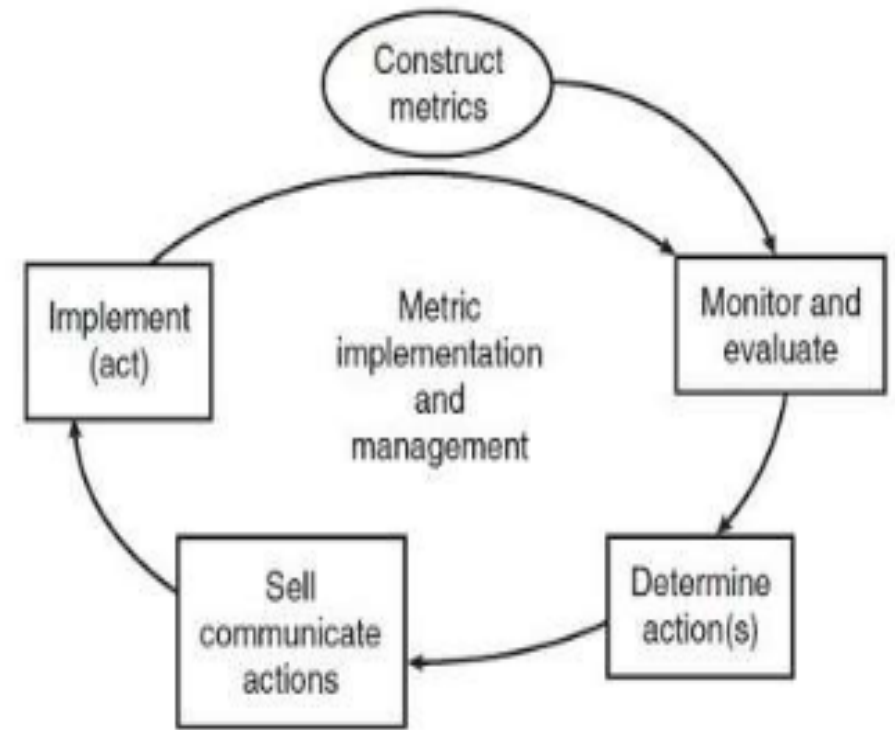- Certified Lean Six Sigma Green Belt, ASQ CCT and NPMA CPPS

Metric Management

Start with purpose

Choose metrics that fit purpose

Know why you're measuring

Know how data will be used

Metric Implementation and Management

https://asq.org › quality-resources › metrics

Top-7 Metrics to Measure

1. On Time Compliance

2. Turn-Around Time

3. Service Location

4. Out of Tolerances (OOT)

5. Work In Progress (WIP) Aging

6. Errors

7. Program Cost

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Metric #1

On Time Compliance

instruments not overdue for calibration / # total instruments
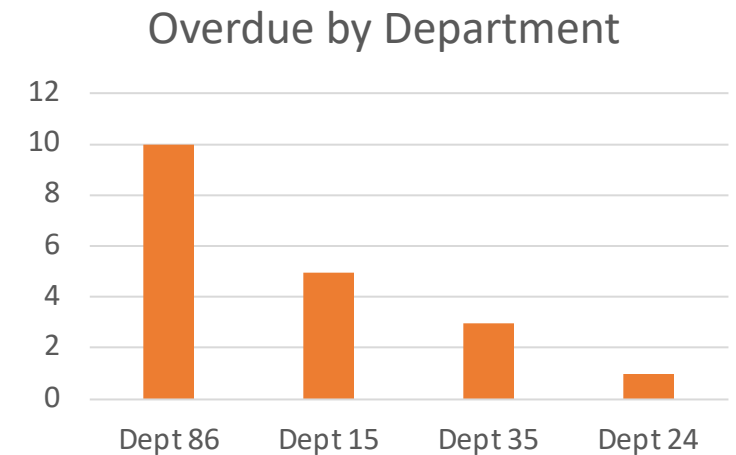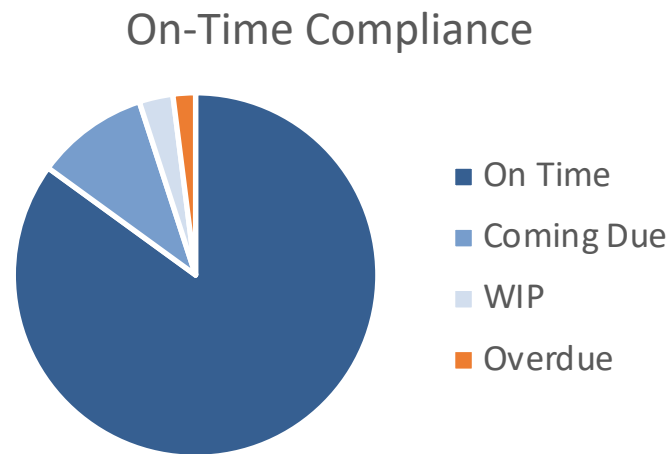
⚠️ *Important because overdue instruments are an audit risk and potential product risk*

Metric #1

On Time Compliance

% of calibrated instruments that are not overdue for calibration

On-Time Compliance

- On Time
- Coming Due
- WIP
- Overdue

Overdue by Department

Metric #2

Turnaround Time

Instrument downtime due to calibration service – many ways to measure

⚠️ *Important because instrument downtime affects production*

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Metric #2

Turnaround Time

Instrument downtime due to calibration service

Preferred ways to measure:

- % of calibrations that met turnaround target

- Average turnaround time (in business days)

- Track by service location

Metric #3

Service Location

% of calibrations performed at each service location (onsite, local lab, remote lab, OEM)

⚠️ *Important because service location has huge impact on instrument downtime*

Metric #3

Service Location

% of calibrations performed at each service location

Service location has biggest impact on downtime

Bus. Days	Location
1	Onsite
2-5	Local Lab
10	Remote Lab
30	OEM / Other 3rd Party

Example

Track changes over time; strive to maximize local + onsite

Metric #4

Out Of Tolerances (OOT)

of OOT events / # of calibrations performed

⚠️ *Important because each OOT event requires an impact assessment*

Metric #4

Out Of Tolerances

% of calibrations that were found Out Of Tolerance

Track over time and drill down as needed:

- By instrument class
- By make & model
- By department

Metric #5

Work In Process (WIP) Aging
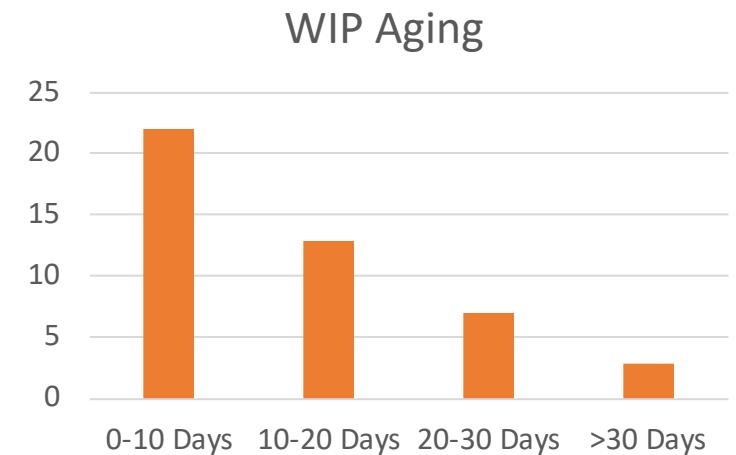
# of days that instruments have been out for service

⚠️ *Important to be proactive and accountable in addressing problem calibrations*

Metric #5

WIP Aging

of days that instruments have been out for service

- Monitor WIP for unexpected delays

- Understand and address reasons for aging WIP

WIP Aging

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Metric #6

Errors

of errors / # of calibrations performed

⚠️ *Important to drive continuous improvement in calibration quality*

Metric #6

Errors

of errors / # of calibrations performed

- Track by error type
- Track by source (i.e., vendor, technician)
- Leverage data to drive CAPAs

Metric #7

Program Cost

All calibration-related expenses

⚠️ *Important to be accountable and to eliminate waste*

Metric #7

Program Cost

All calibration-related expenses

- Compare spending vs. budget and forecast

- Measure success of lean projects

- Be proactive in addressing overages

Summary – 7 Top Metrics Categorized

QUALITY	• On Time Compliance • Out Of Tolerances • Errors
PERFORMANCE	• Turnaround Time • Service Location • WIP Aging
COST	• Program Cost

Other Metrics

Customer Satisfaction   Internal or external customer satisfaction survey results

Calibration Throughput   # calibrations completed / lab (or technician) / time

Level Loading   Calibration workload distribution over time

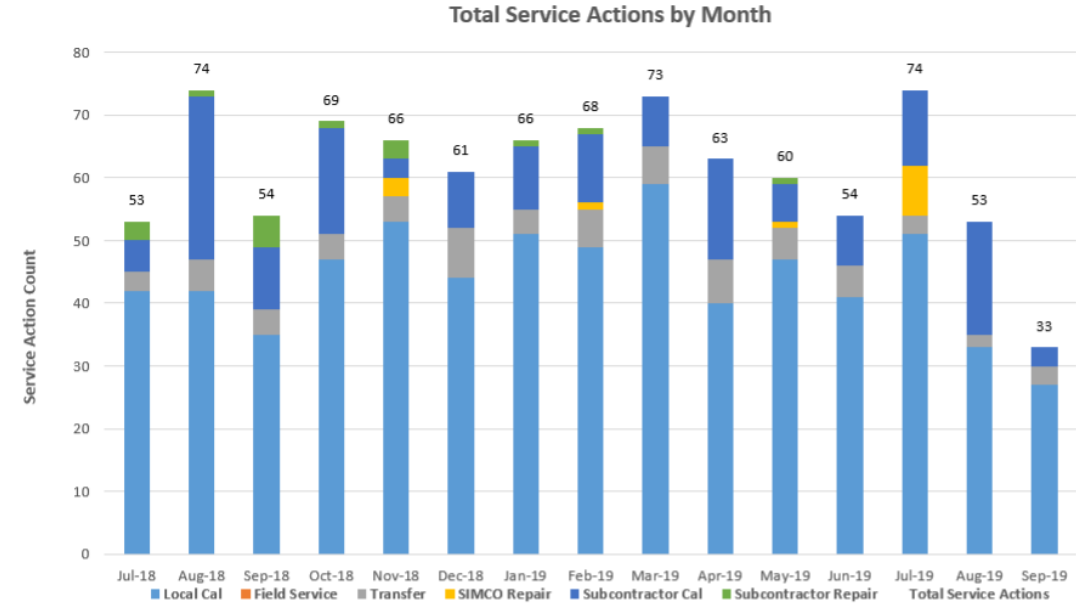**Many Others**   Depending on customer needs

Interpreting the Data

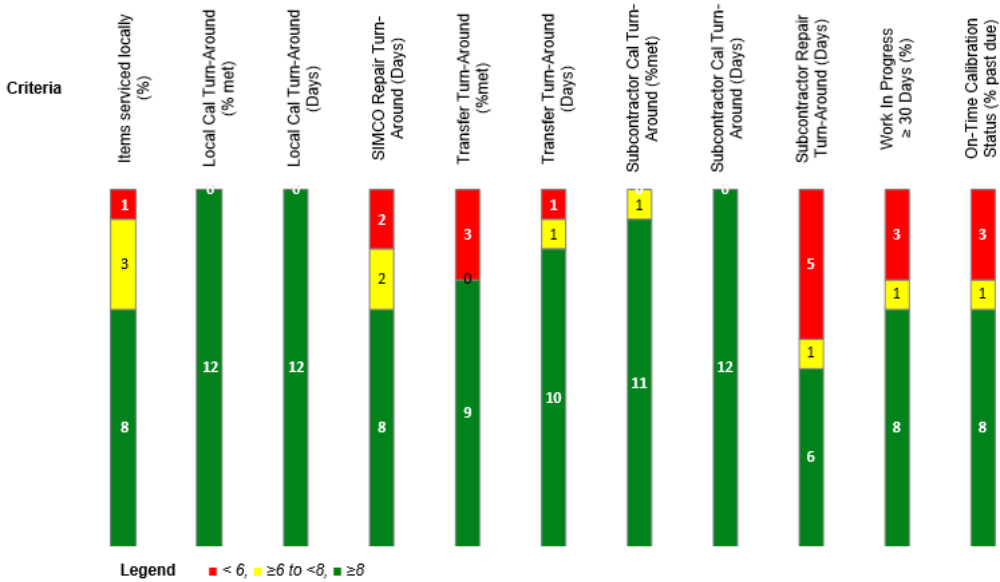**Use Effective Visualization:**

- Include overlapping periods

- Include relevant supporting / contextual data

- For turnaround, consider both % meeting goal <u>and</u> average days

- Use Stoplights

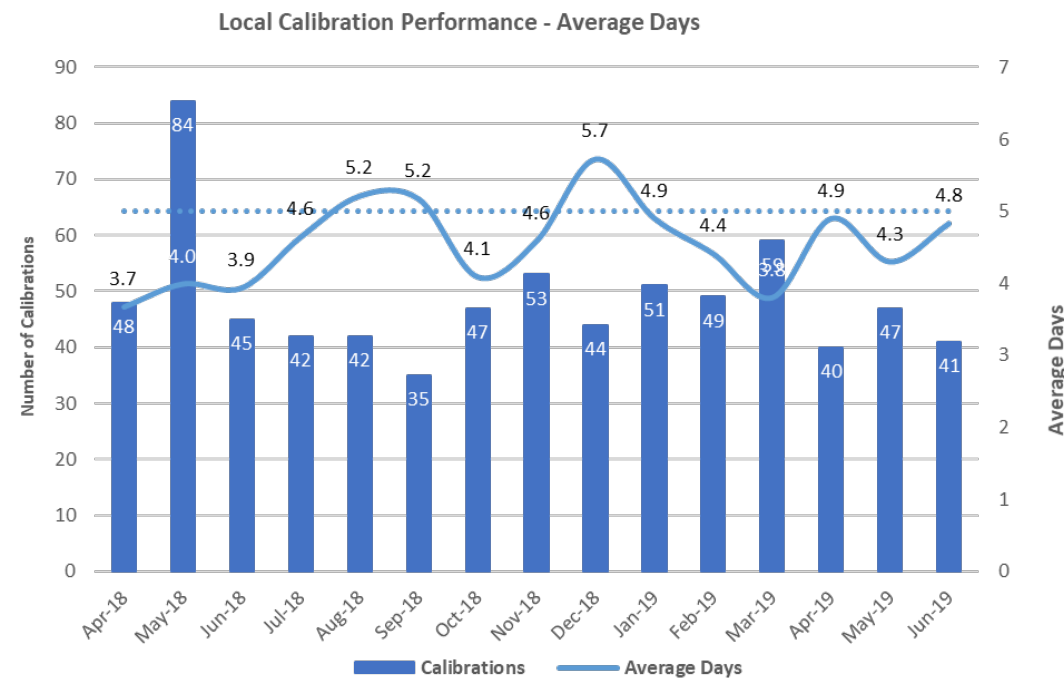simco

Example Data Visualizations

Stacked Column Charts
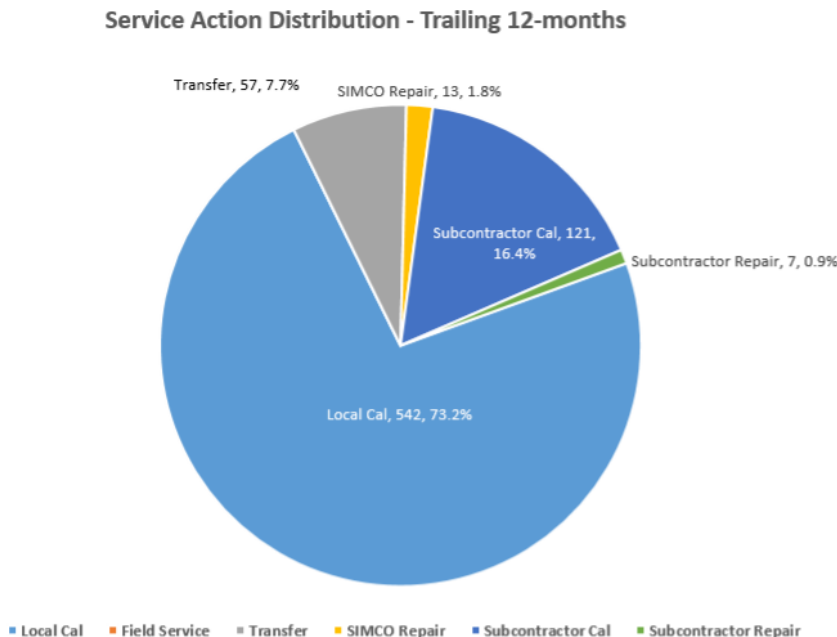

100% Stacked Column Charts

Example Data Visualizations

Dual-Axis Charts

Pie Charts

Lead Through Metrics

Prioritize your metrics What are the top metrics for your organization?

Share Ownership A world class program takes more than a good cal lab

Be Transparent Good or bad, report the data and own the results

Automate Automate to measure, monitor, benchmark, improve

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Q&A

Resources

Visit www.simco.com/top-calibration-metrics-guide for

more information on improving your calibration program

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Thank you for attending!

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