From 50 KPIs to 10
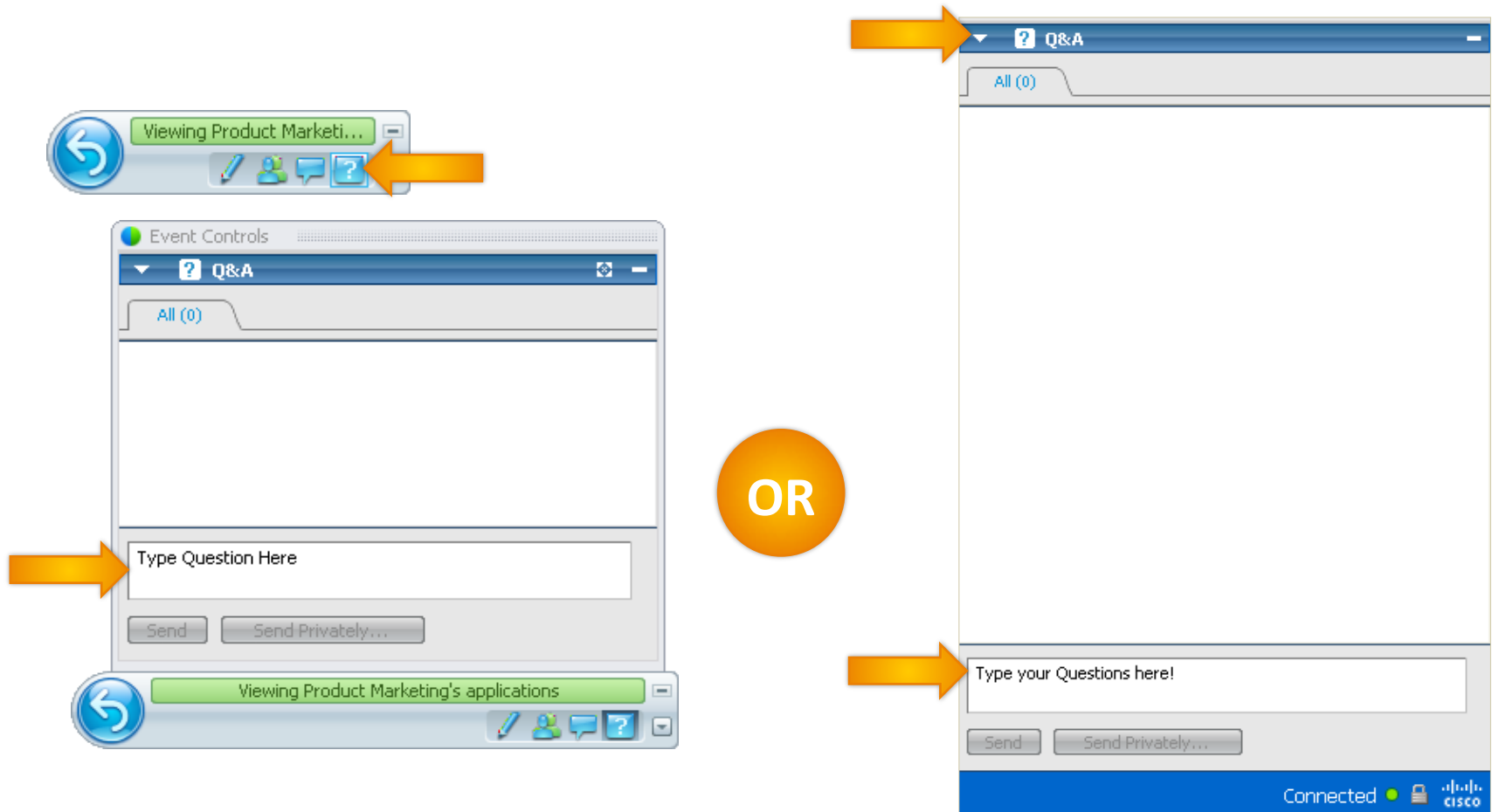
Move from Static to Real-time KPIs

Recording in Progress

This webcast is being recorded.

You will receive a link to the recording so you can replay it or share it with colleagues.

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Have a question or comment? Tell us!

OR

"Downtime" is only fun on the weekends.

Epicor helps you tackle tough manufacturing problems, so downtime happens only when it's supposed to.

MORE CAPACITY without more assets
- Find and eliminate downtime
- Make more product or reduce cost

IMPROVE THROUGHPUT
- Monitor and analyze speed and cycle time

Improve quality/**REDUCE SCRAP**
- Reveal quality loss and its underlying reasons

IMPROVE OEE

Learn more about Epicor software designed specifically for manufacturing operations.

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Sponsor & Guest

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big data for supply chain

one view of KPIs

decision enablement

data immersion

supply chain enablement systems

Do you have what it takes
to become a
NEXT GENERATION
MANUFACTURING
ENTERPRISE?

HYPER
Information Enabled

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Fewer than 20% of companies say that "everyone" in their business gets the numbers they need to make day-to-day decisions.

Marr, B./Advanced Performance Institute (2012). API: Experts in KPI, Big Data, Enterprise Performance Management. Retrieved from http://www.ap-institute.com/

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Maybe it's time to rethink KPIs for manufacturing ops in context of real-time data.

✓ THE RIGHT PEOPLE

✓ THE RIGHT INSIGHT

✓ AT THE RIGHT TIME

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Move from Static to Real-Time KPIs
Clarity Metrics Design Methodology

Identify Current KPIs	Examine Complexity	Examine Frequency	Establish a Roadmap	Focus on 1st Year Quick Wins

- Identify KPIs across the business

- Examine data complexity and sources
- Examine reporting

- Identify reporting frequency
- Identify data avail. frequency

- Develop acceleration plan
  Monthly➔weekly
  Weekly➔daily
  Daily➔hourly
- Set 1st year goals

- Define scope for a good POC
- Broaden scope across KPIs

1 Apply the Methodology
Identify Current KPIs

KPI Group	Primary KPI	Supporting KPIs	
Manufacturing Performance	OEE	• Minor/major stops • Capacity utilization	• TEEP • Gallons produced
Quality	% Out of Spec	• CP • CPk • PPM	• Sigma level • Quality incidents
Safety	Safety Index	• Lost time incidents • Days without accidents	• OSHA recordables • Near misses
Cost Variance	AOP Variance	• % cost per unit variance • Standard cost	• Actual cost • Overhead variance
Work Order Compliance	% On Time Completion	• Planned work orders • Unplanned work orders	• Planned WO on time • Planned/unplanned ratio

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Apply the Methodology
Examine Complexity and Frequency

KPI Group	Business Priority	Data Sources	Data Readiness	Analytics Readiness	Update Frequency	Review Frequency
Manufacturing Performance	HIGH	EMI and MES systems	YES	HIGH	Daily	Weekly
Quality	LOW	Quality systems	NO	LOW	Monthly	Monthly
Safety	VERY HIGH	Access database	YES	HIGH	Daily	Weekly
Cost Variance	MEDIUM	ERP	YES	HIGH	Daily	Weekly
Work Order Compliance	HIGH	ERP	NO	LOW	Weekly	Monthly

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3 Apply the Methodology
Develop a KPI Complexity Matrix

KPI Group	Business Priority	Data Sources	Data Complexity	App Complexity
Manufacturing Performance	HIGH	EMI and MES systems	MED	MED
Quality	LOW	Quality systems	LOW	LOW
Safety	VERY HIGH	Access database	HIGH	MED
Cost Variance	MEDIUM	ERP	LOW	LOW
Work Order Compliance	HIGH	ERP	LOW	LOW

Apply the Methodology
Identify 1st Year Quick Wins

KPI Group	Data Complexity	Business Priority	Data Readiness	Analytics Readiness	Update Frequency	Review Frequency
Manufacturing Performance	MEDIUM	HIGH	YES	HIGH	Daily	Weekly
Quality	LOW	LOW	NO	LOW	Monthly	Monthly
Safety	HIGH	VERY HIGH	YES	HIGH	Daily	Weekly
Cost Variance	**LOW**	**MEDIUM**	**YES**	**HIGH**	**Daily**	**Weekly**
Work Order Compliance	LOW	HIGH	NO	LOW	Weekly	Monthly

Case Study: Conversion Cost
A Target Candidate for Real-Time

Before	After
KPIs	KPI
• Cost data: update and share monthly • Output data: share weekly	• Consolidated conversion cost • Real-time information to shop floor and management
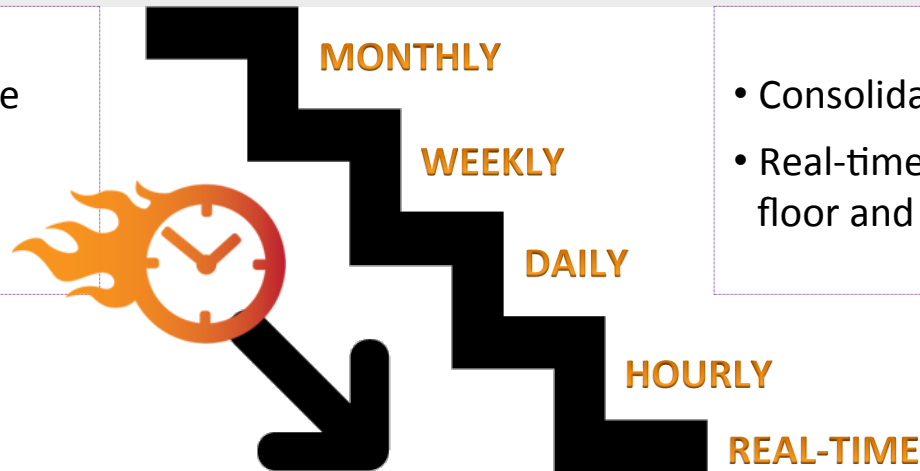
MONTHLY

WEEKLY

DAILY

HOURLY

REAL-TIME

Case study: Real-Time KPIs
With One View & Epicor Informance

REAL-TIME DASHBOARDS

- "Shallow dive" of real-time metrics

- Preconfigured views: WTD, MTD, YTD

- Manager and executive visibility

- Compelling format, drive discussions around performance

- Compliment existing BI and data mining tools

- Capture data from disparate data systems into "One View"

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Case study: Multi-View Navigation
Supply Chain Dashboards
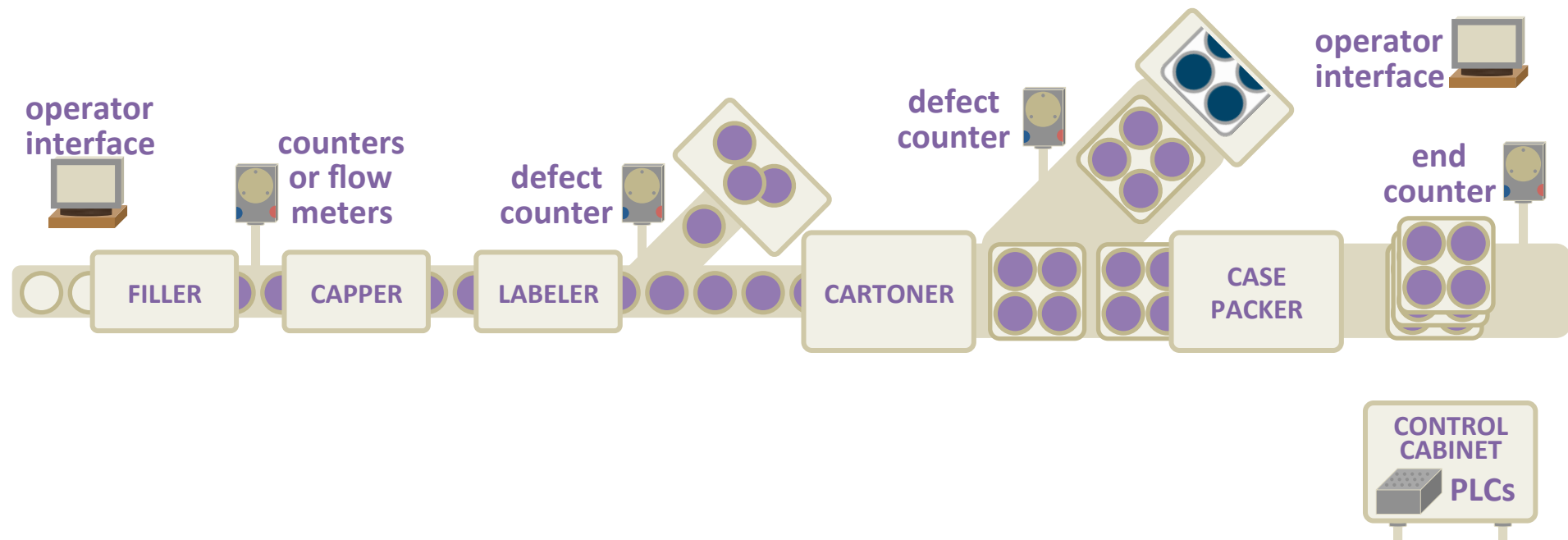
ESTABLISH KPI groups

1. Order fulfillment
2. Adherence to plan
3. Conversion cost
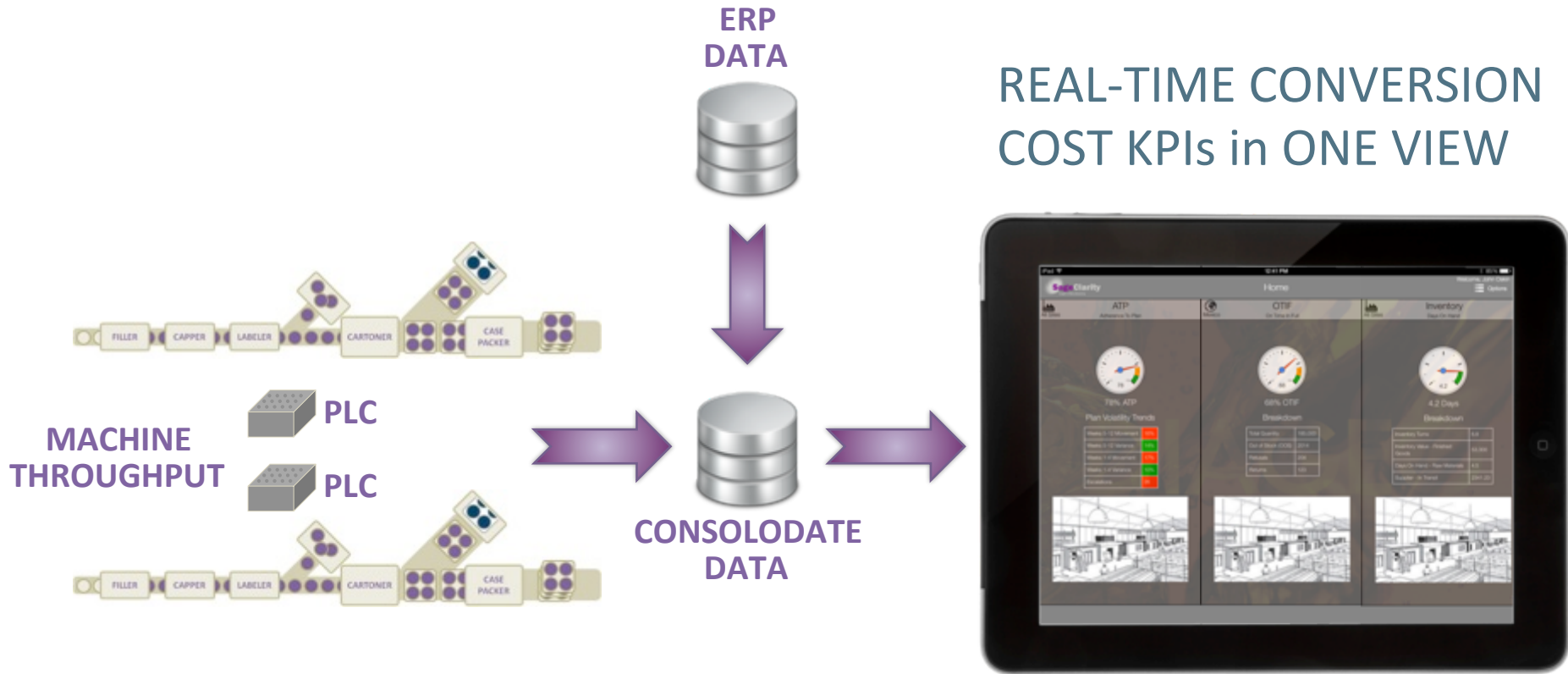4. etc. …

DESIGN data source integration

- Epicor Informance
- InfinityQS
- Ad hoc Db, etc.
- …other existing software

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Case Study: Measure Output in Real-Time

operator interface

counters or flow meters

defect counter

defect counter

operator interface

end counter

FILLER

CAPPER

LABELER

CARTONER

CASE PACKER

CONTROL CABINET

PLCs

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Case Study: Consolidate Cost and Throughput

ERP DATA

REAL-TIME CONVERSION COST KPIs in ONE VIEW

MACHINE THROUGHPUT

PLC

PLC

CONSOLODATE DATA

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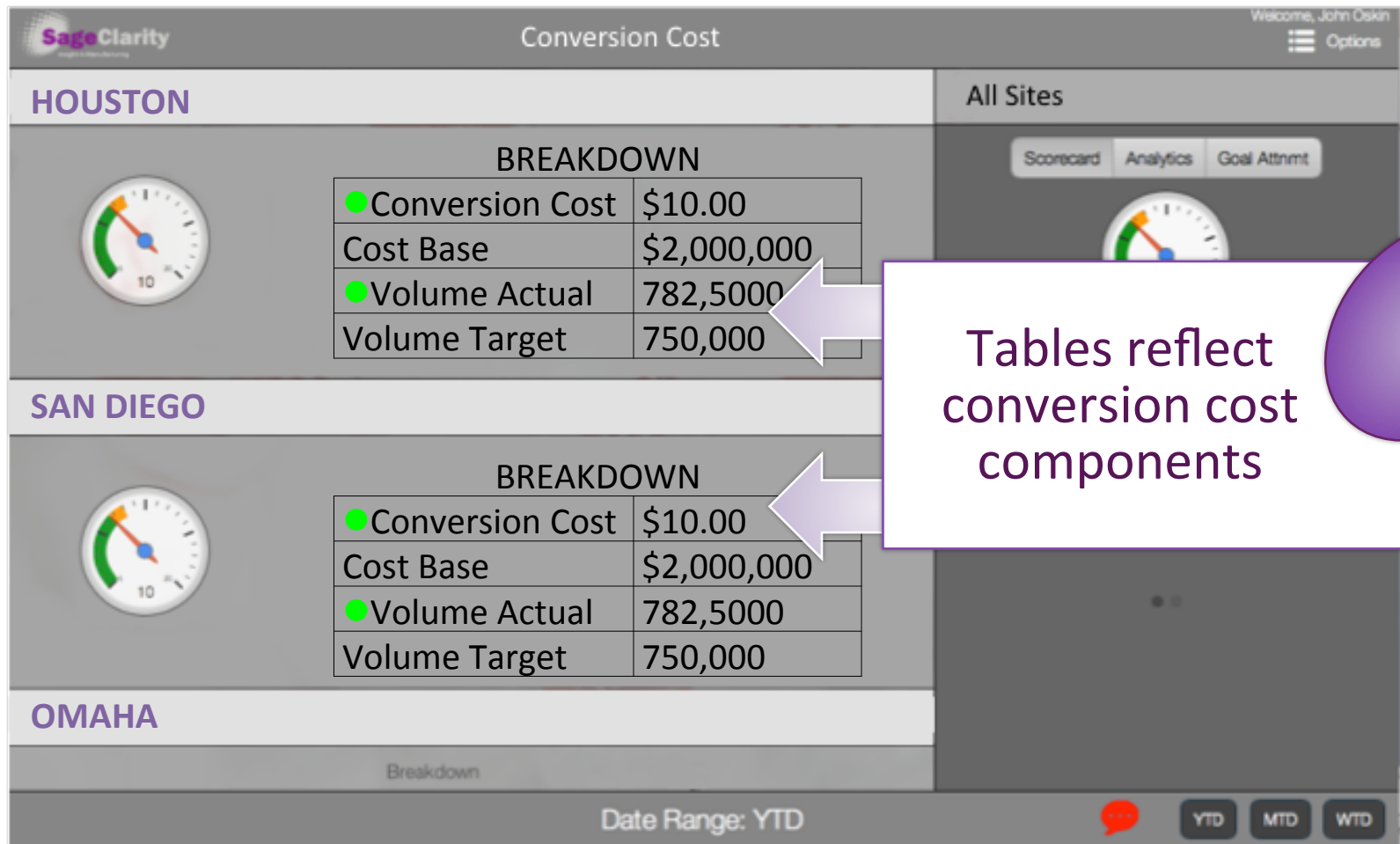
Many Benefits

- Timely information with real-time data

- Workforce actively engaged around important KPI

- Workforce empowered to influence the outcome

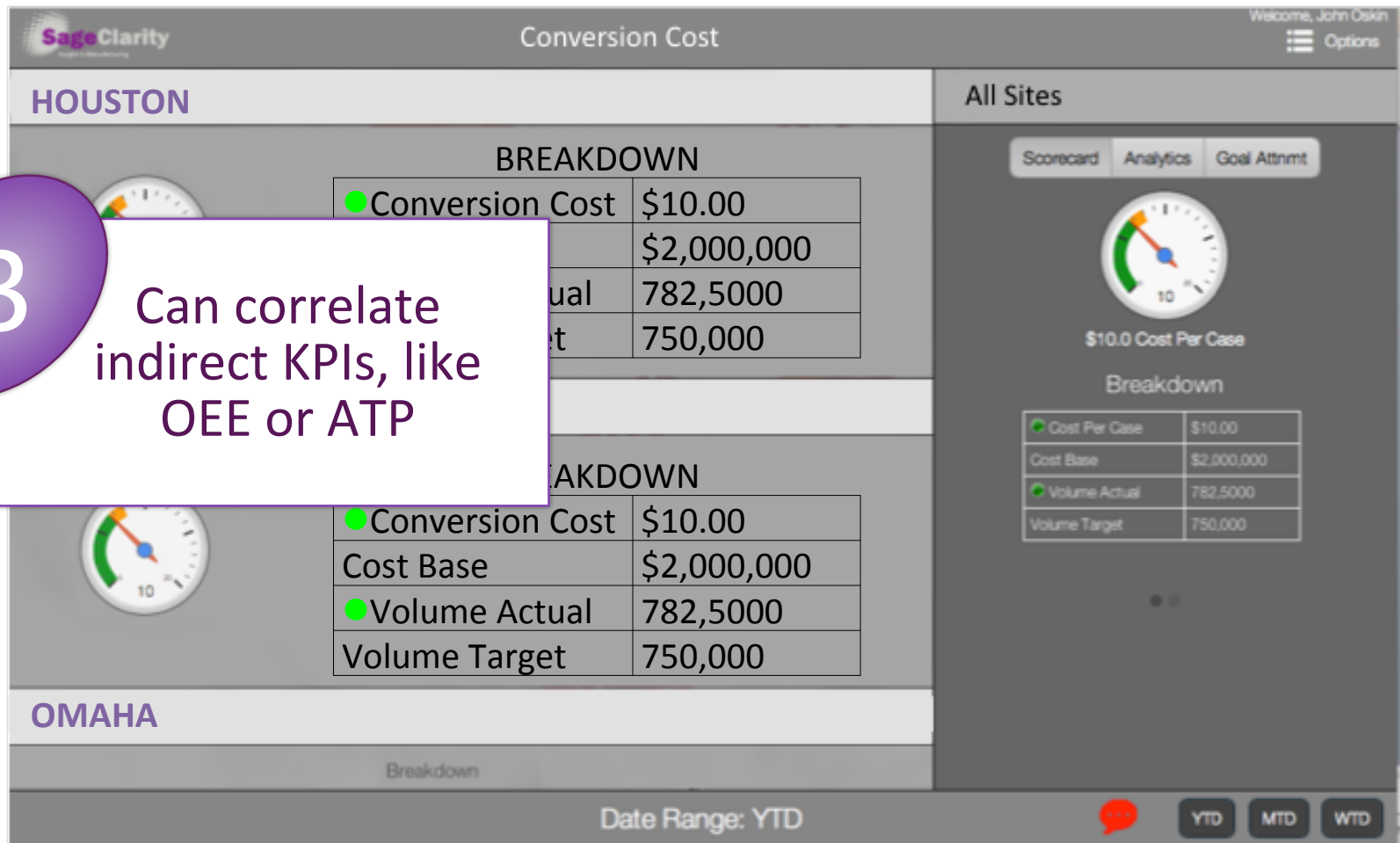- Simplified static metrics to focused, relevant real-time KPI

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Conversion Cost: Scorecard & Options
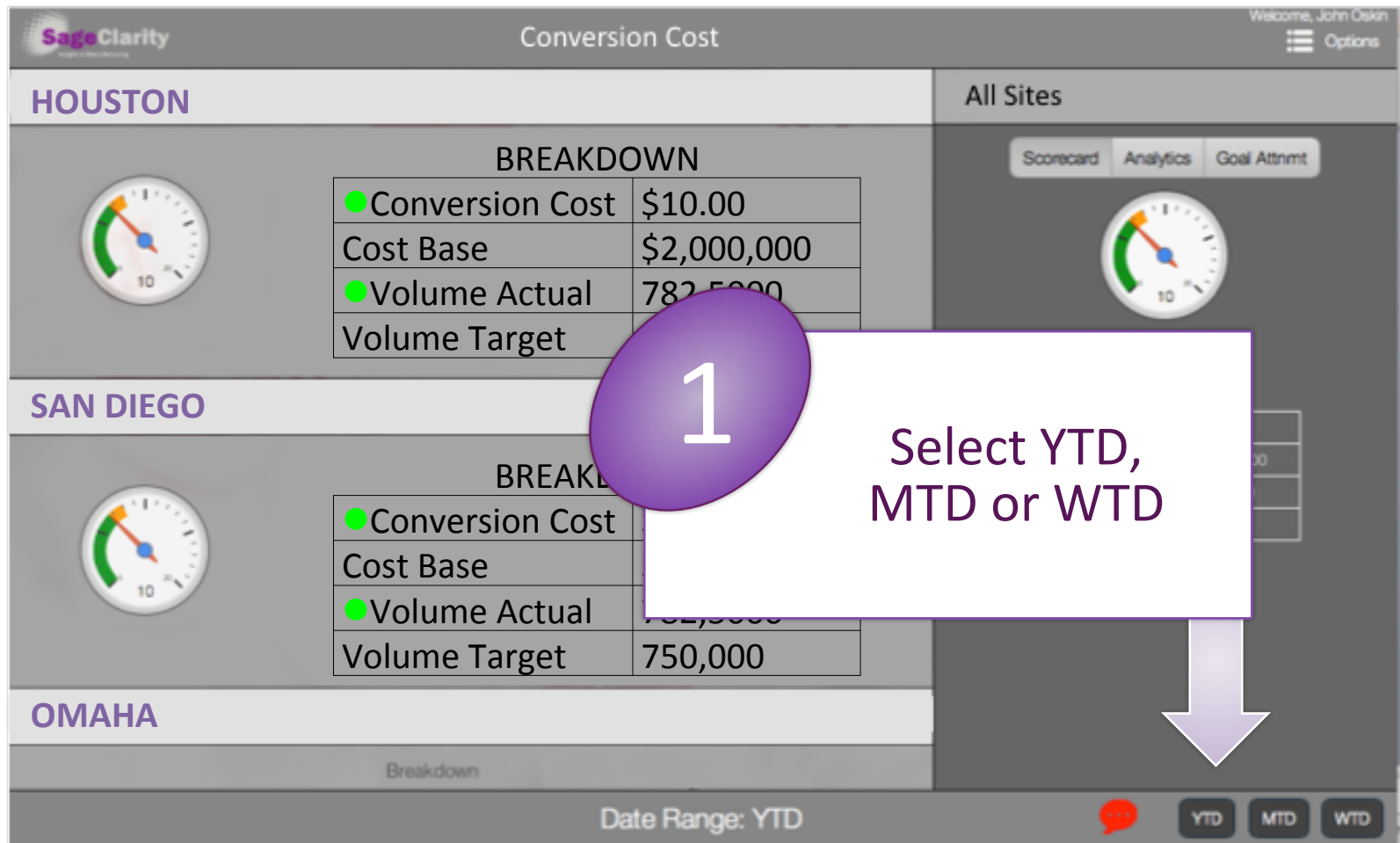
Conversion Cost: Scorecard & Options

Conversion Cost: Scorecard & Options

3 Can correlate indirect KPIs, like OEE or ATP

Conversion Cost: Visual Analysis

KEY ANALYTICS

1. Conversion cost trends
2. YTD, MTD, WTD reporting

Conversion Cost: Scenario Planning

KEY ANALYTICS

1. Visualize different scenarios to achieve goals

2. Dual sliders to vary cost base and projected output

What you can do to get there…

- Assess current KPIs by business function, role and department

- Consider real-time readiness and maturity, in context of people and data sources

- Create a KPI roadmap and action plan; prioritize by readiness and business value

- Choose the "best" KPIs and commit the right resources

- Develop a strategy to move from static metrics to relevant real-time KPIs

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Questions?

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