Solving Business Initiatives with the PI System

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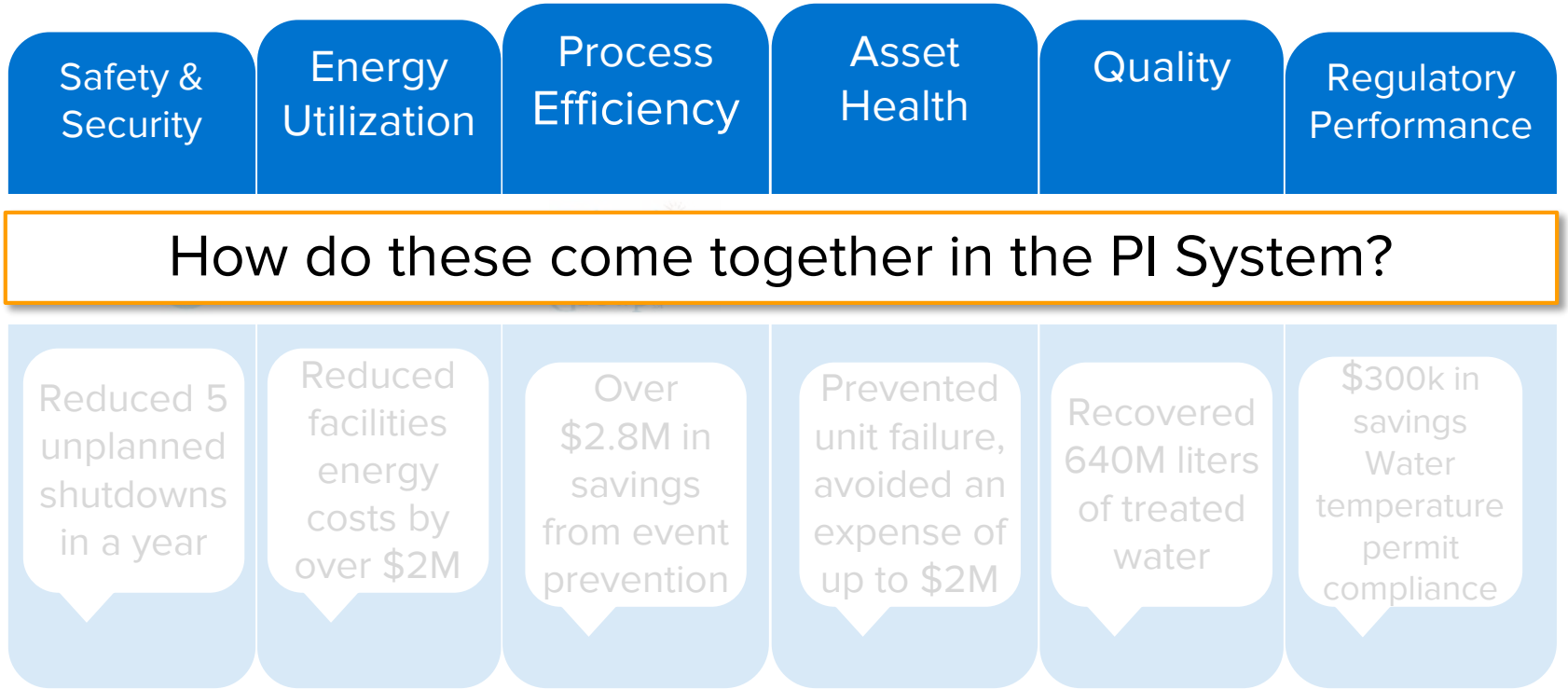
OSIsoft

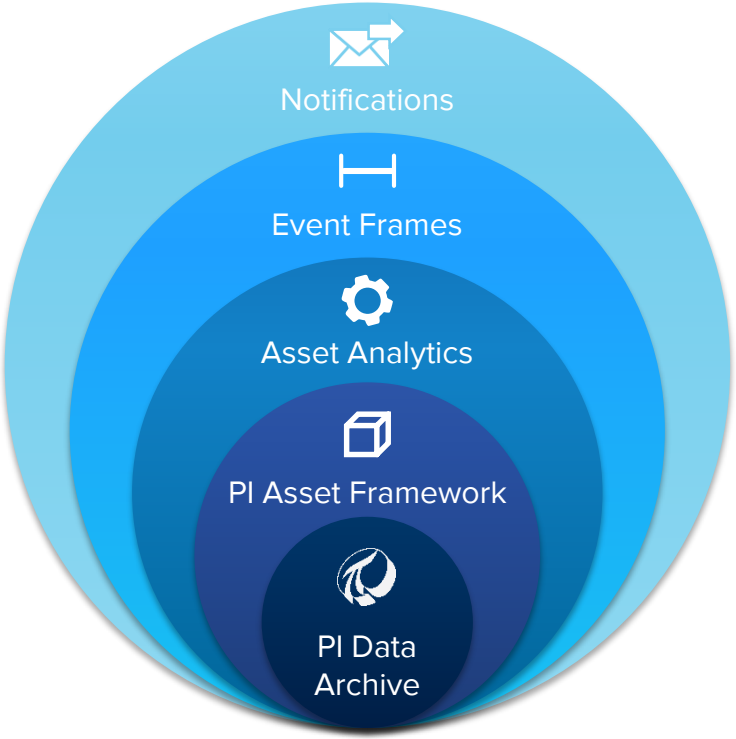
Business Impacts: Delivering Value at Enterprise Scale

Safety & Security	Energy Utilization	Process Efficiency	Asset Health	Quality	Regulatory Performance
PETRONAS	Microsoft	Columbia Pipeline Group	Power Stream	Maynilad	Wheelabrator Technologies Inc. A Waste Management Company
Reduced 5 unplanned shutdowns in a year	Reduced facilities energy costs by over $2M	Over $2.8M in savings from event prevention	Prevented unit failure, avoided an expense of up to $2M	Recovered 640M liters of treated water	$300k in savings Water temperature permit compliance

Business Impacts: Delivering Value at Enterprise Scale



Modern PI Server: Data in context of assets & events



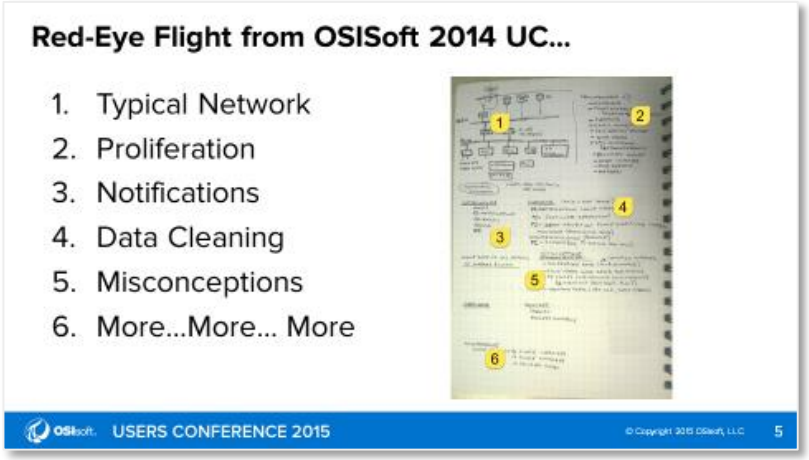
PI Server

WT27.SI.PV 18

Wind Turbine #27

- 18 rpm
- Springfield
- 8-hour average
- Last curtailment code

Power of planning: From simple notes to real impact



- Reliable production estimates
- 35% reduction in energy usage
- Simplified reporting: days to minutes

How do you get started?

Where you want to be

Myth

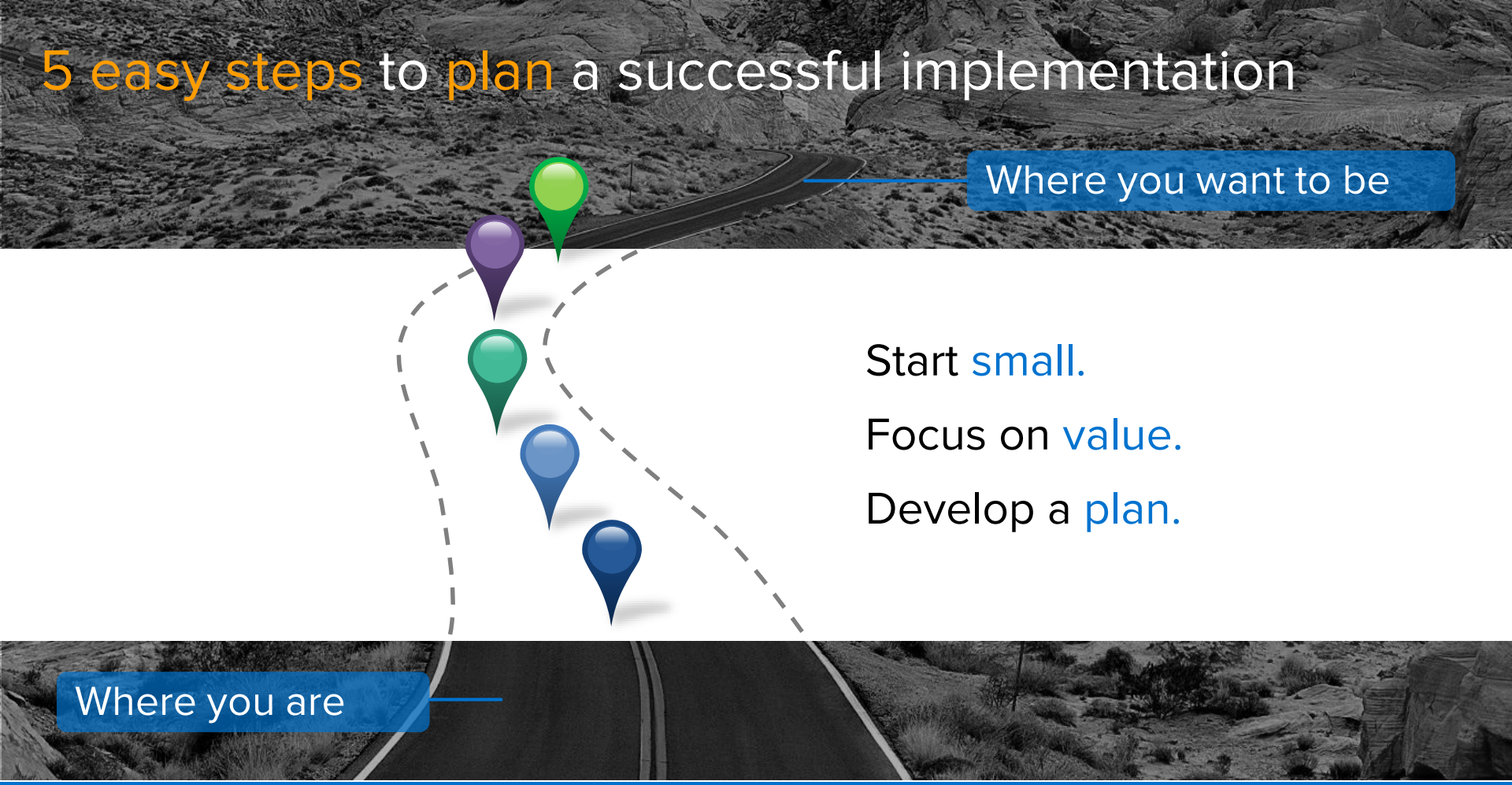
Get it 100% right

Risk

Run into organizational challenges

Where you are

5 easy steps to plan a successful implementation



Start small.

Focus on value.

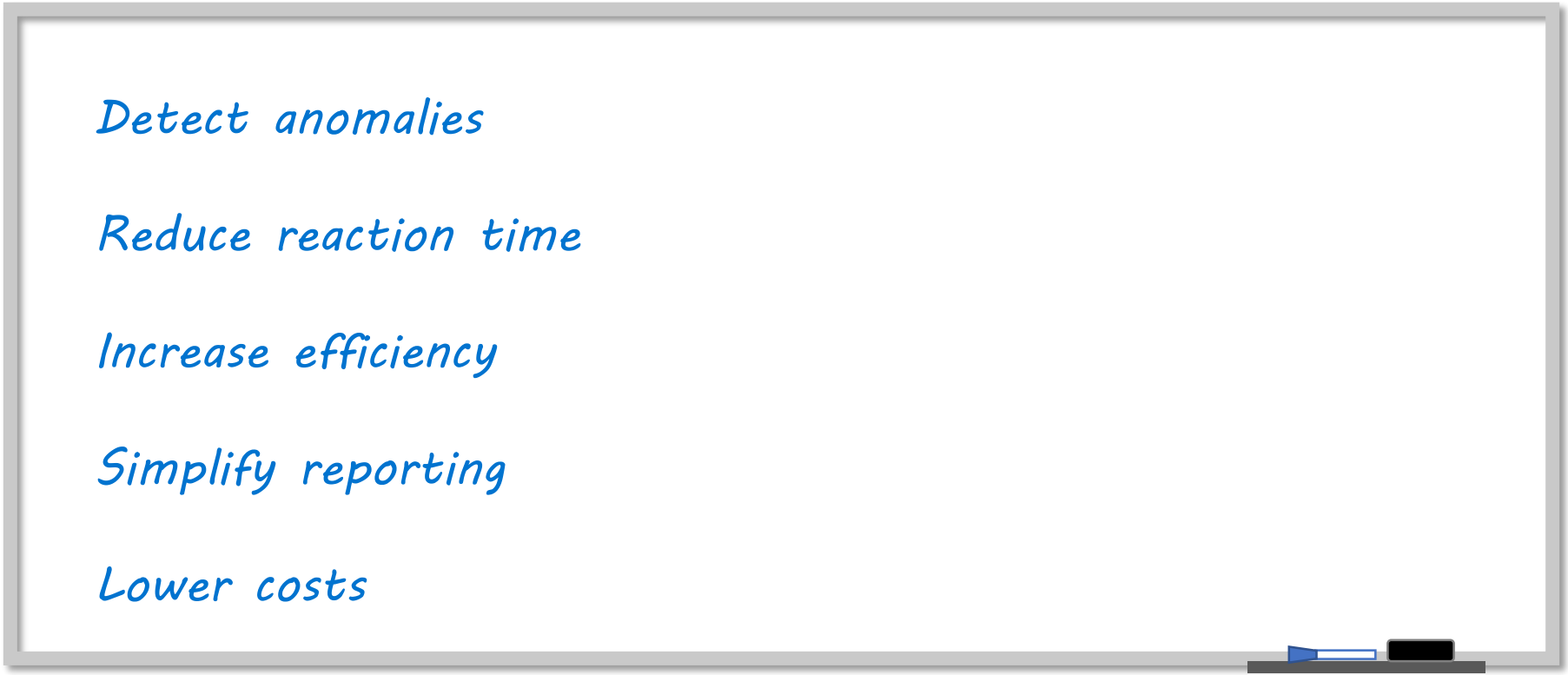
Develop a plan.

5 steps to define a plan

Imagine

What do I want?

Performance improvement, Reduced energy use



Focus

Where is the easiest or biggest ROI opportunity?

Problematic equipment, High-value process

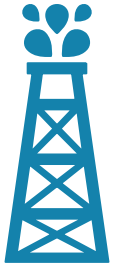
Detect anomalies

Transformer voltage variation

Reduce reaction time

Shorten vacuum phase

Increase efficiency



Improve rig drilling

Simplify reporting

Monthly EPA spreadsheet

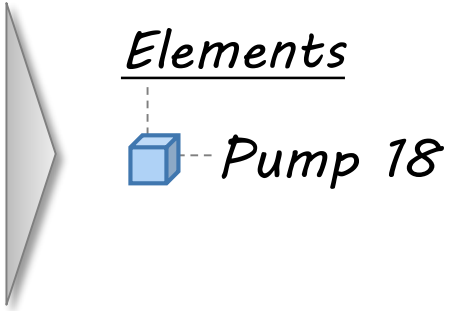
Lower costs

Reduce pump maintenance

Lower costs: Reduce pump maintenance

Imagine

Focus



Lower costs: Reduce pump maintenance

Imagine

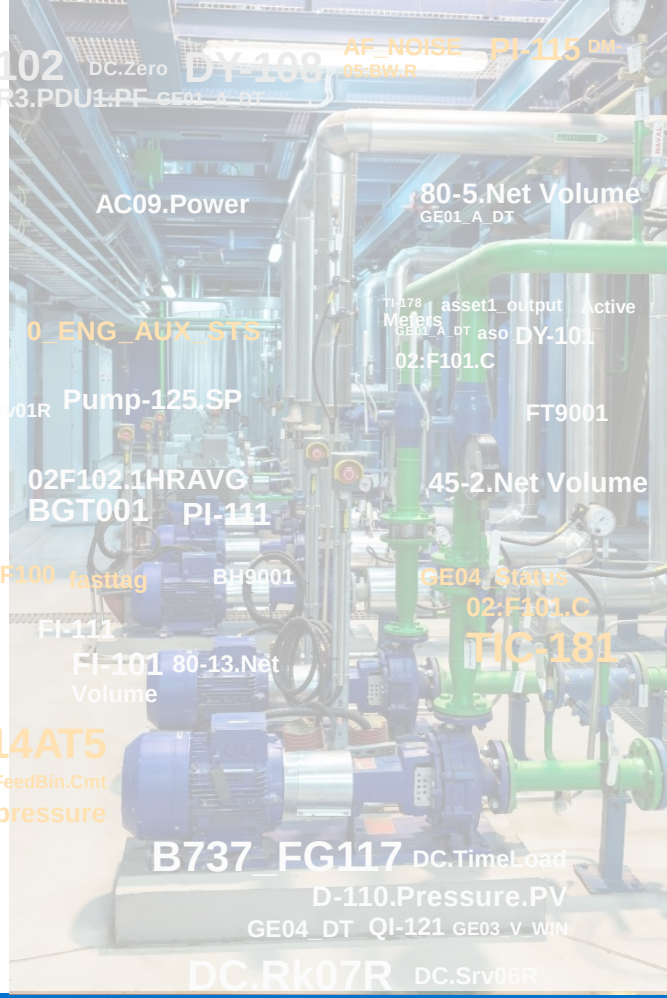
Focus

Elements

Pump 18

"What does that asset look like?"

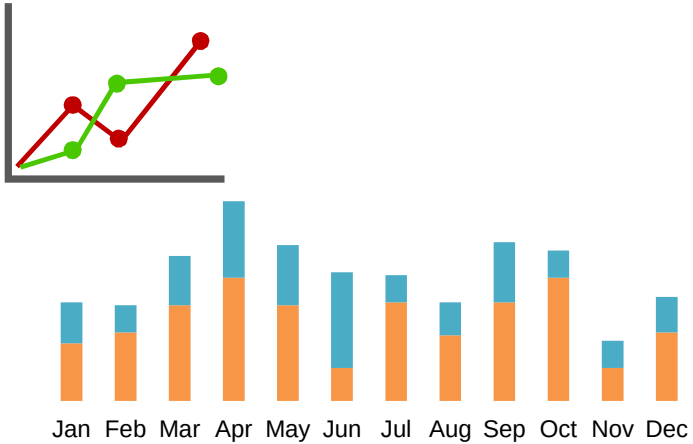
"What tags do I have?"



What do I need for my focused initiative?

Pro-tip

Specify the final visualization, then reverse engineer needed data.

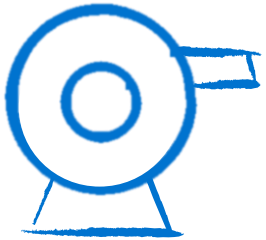


$$[E_f] = \frac{[E_0] - [ES](1 + \frac{[I_f]}{K_I})}{(1 + \frac{[I_f]}{K_I})}$$

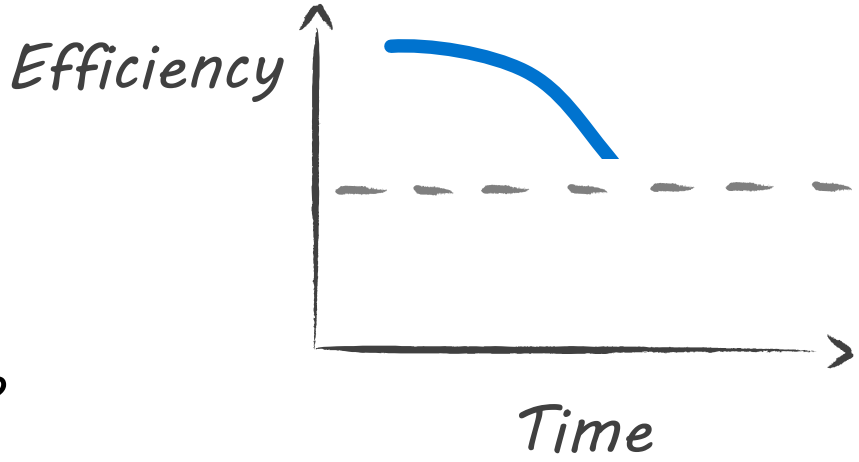
Specify

What information do I want to see, and how?

Specific readings, Aggregate metrics, Trends, Reports



Type: Discharge pump



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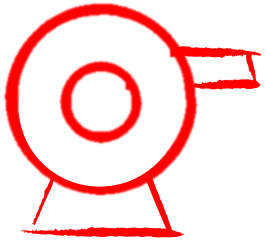

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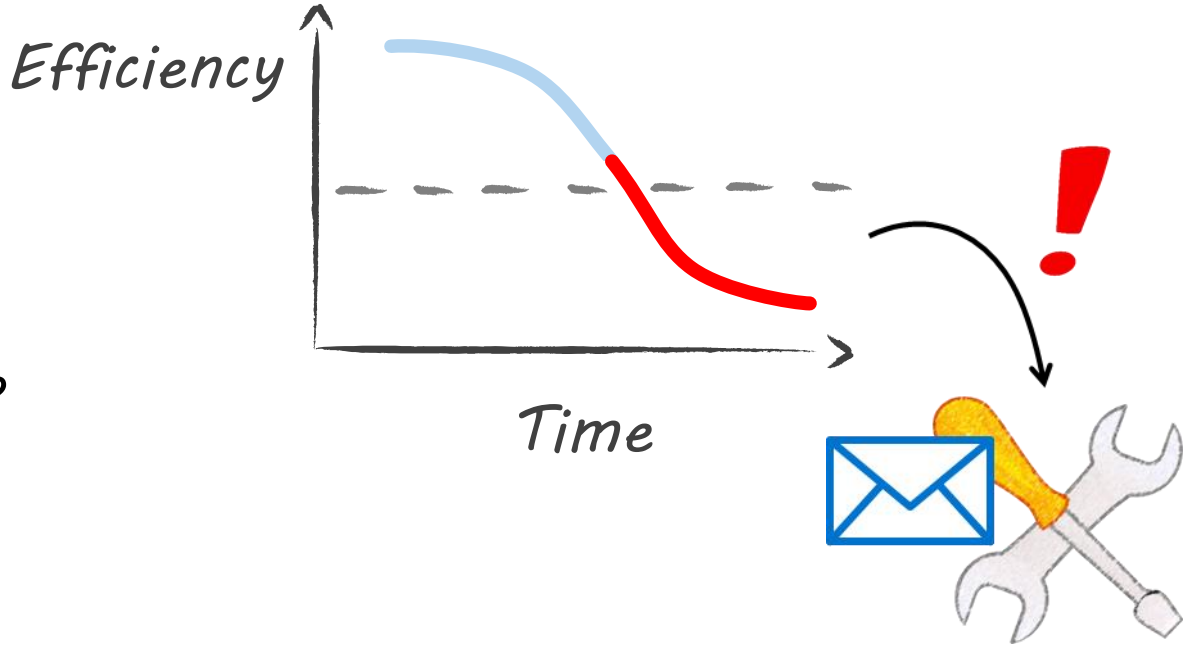

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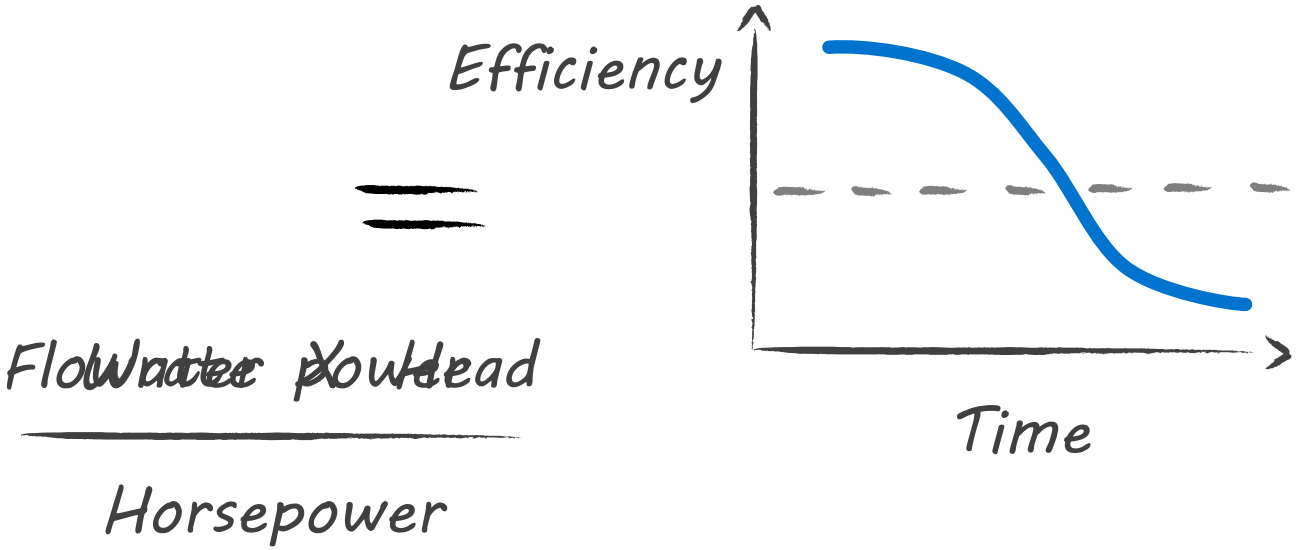

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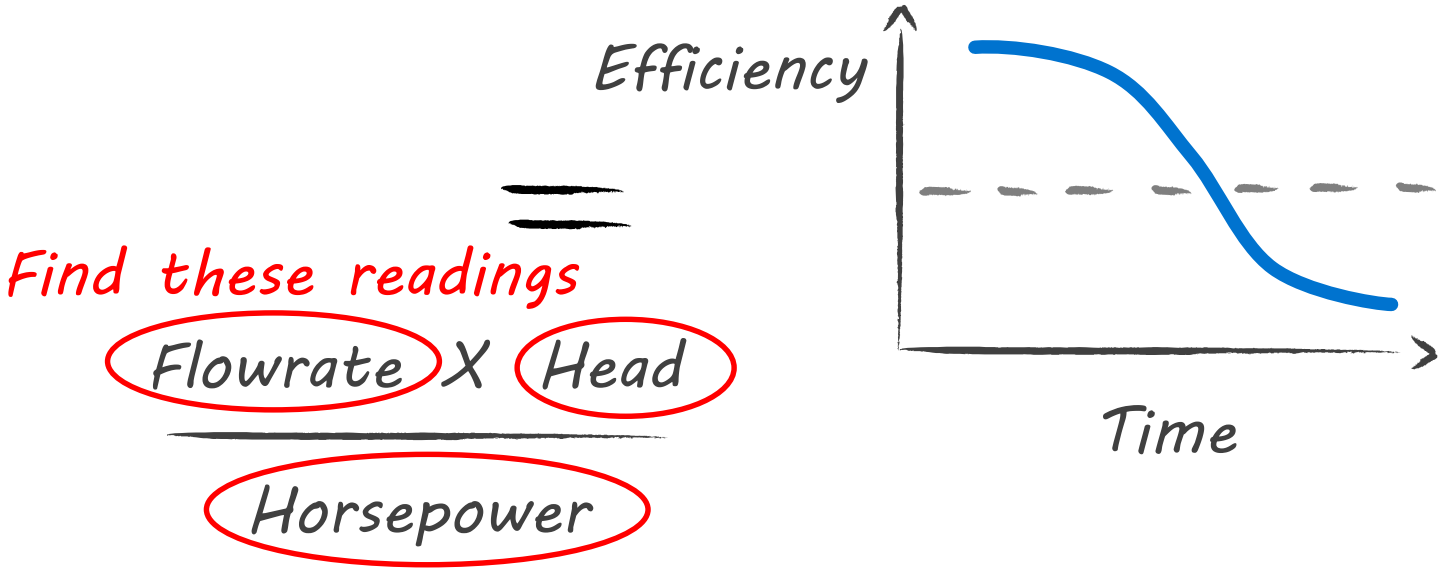


Map

Where does the data come from?

Data sources, Particular assets or processes

Pump operation: ⇦

- *Flowrate*
- *Head*
- *Other indicators*

Pump specifications: ⇦

- *Horsepower*
- *Theoretical efficiency*

Design

What should I consider when designing templates?

Making comparisons, preserving simplicity, re-use

Do I have other similar pieces of equipment that I want to compare?

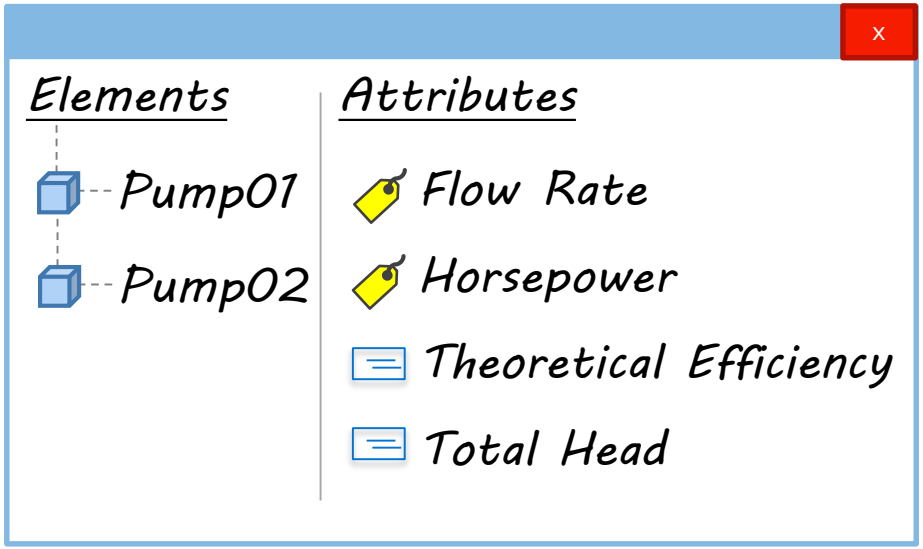
Are there components that I want to compare separately?

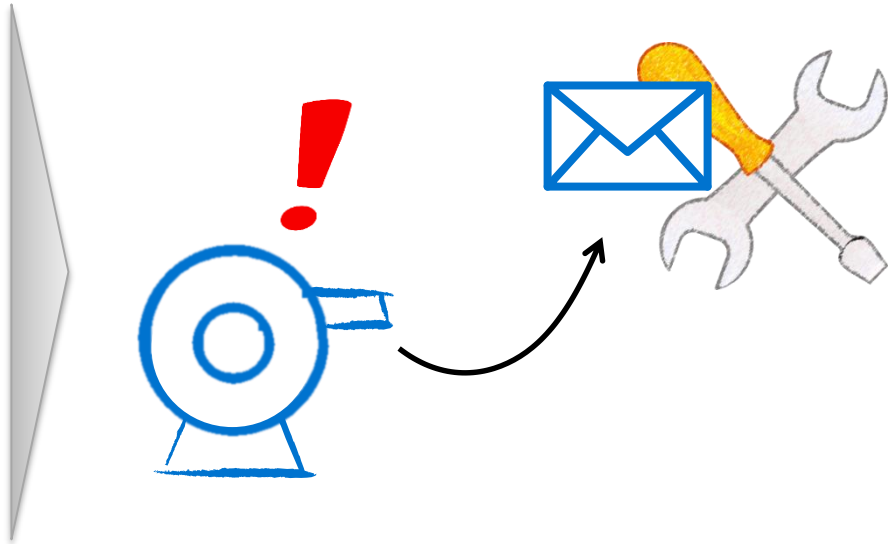
Do I look at a tire without the truck?

Do I look at a valve without the tank?

Pulling it all together

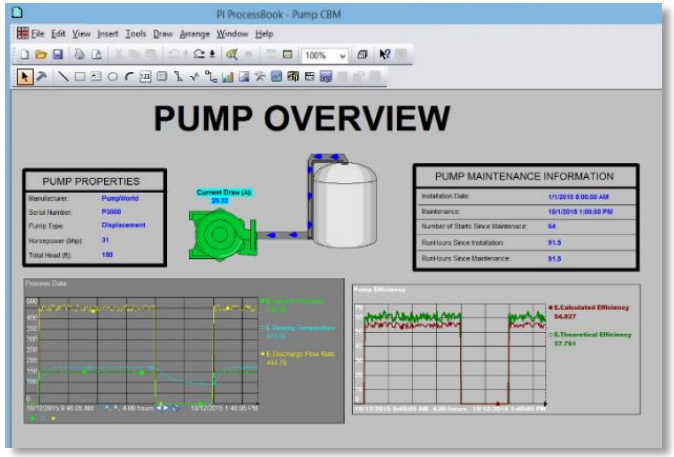
4 simple attributes is all you need to start CBM

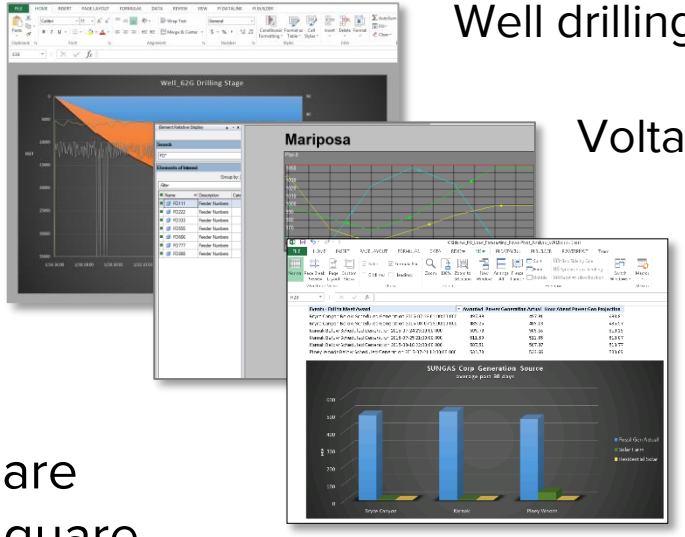




Asset Based PI Example Kits: See initiatives take shape

CBM for pumps





Well drilling

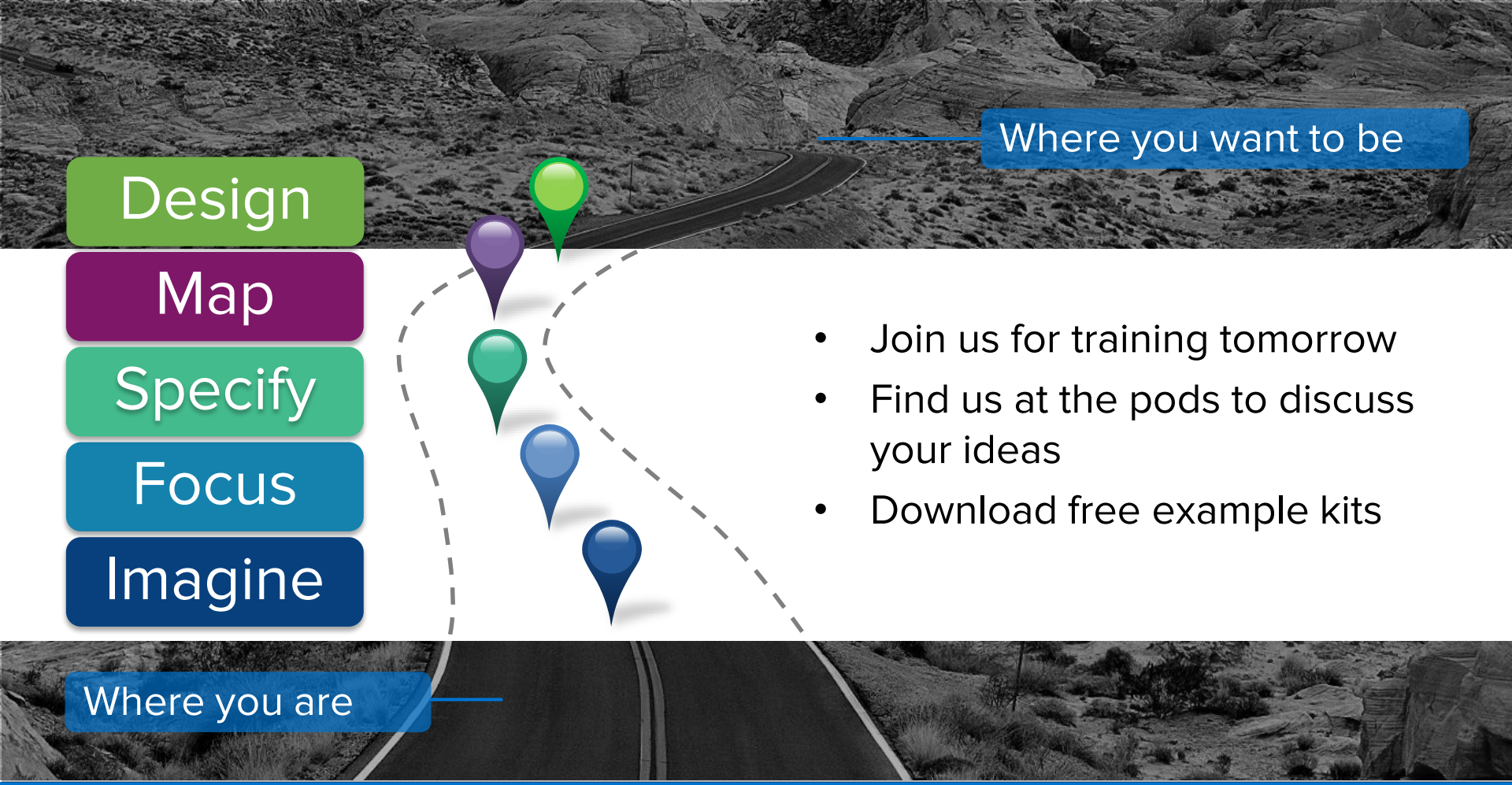
Voltage monitoring

Load forecasting

...and more!

Asset Based PI Example Kits are available to everyone on PI Square.

- Search www.pisquare.com > “example kit”



- Join us for training tomorrow
- Find us at the pods to discuss your ideas
- Download free example kits

Looking for more coaching? Workshops to fit your needs

PI Discovery Workshop

Learn → Educate → Explore

PI Innovation Workshop

Enable → Execute

Contact your account manager for details

On-site workshops (up to 3 days), targeted at your business use case(s) with your experts and ours, and using your data and your PI System.

Contact Information

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OSIsoft, LLC

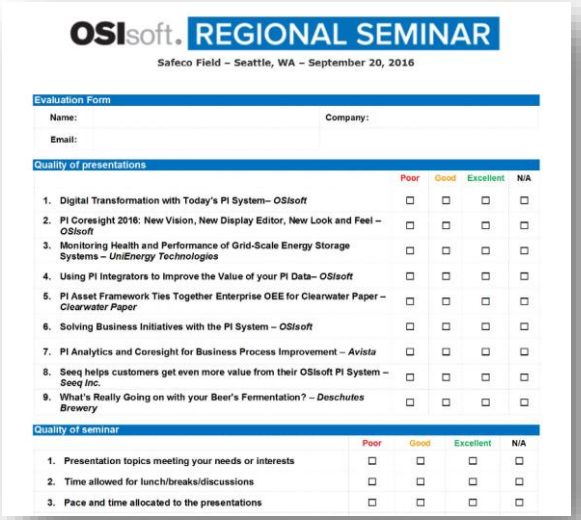
Questions

Please wait for the **microphone** before asking your questions

State your
name & company

Please remember to…

Complete the Survey
for this session



OSIsoft. REGIONAL SEMINAR

Safeco Field – Seattle, WA – September 20, 2016

Evaluation Form

Name: Company:

Email:

Quality of presentations

	Poor	Good	Excellent	N/A
1. Digital Transformation with Today's PI System– *OSIsoft*	☐	☐	☐	☐
2. PI Coresight 2016: New Vision, New Display Editor, New Look and Feel – *OSIsoft*	☐	☐	☐	☐
3. Monitoring Health and Performance of Grid-Scale Energy Storage Systems – *UniEnergy Technologies*	☐	☐	☐	☐
4. Using PI Integrators to Improve the Value of your PI Data– *OSIsoft*	☐	☐	☐	☐
5. PI Asset Framework Ties Together Enterprise OEE for Clearwater Paper – *Clearwater Paper*	☐	☐	☐	☐
6. Solving Business Initiatives with the PI System – *OSIsoft*	☐	☐	☐	☐
7. PI Analytics and Coresight for Business Process Improvement – *Avista*	☐	☐	☐	☐
8. Seeq helps customers get even more value from their OSIsoft PI System – *Seeq Inc.*	☐	☐	☐	☐
9. What's Really Going on with your Beer's Fermentation? – *Deschutes Brewery*	☐	☐	☐	☐

Quality of seminar

	Poor	Good	Excellent	N/A
1. Presentation topics meeting your needs or interests	☐	☐	☐	☐
2. Time allowed for lunch/breaks/discussions	☐	☐	☐	☐
3. Pace and time allocated to the presentations	☐	☐	☐	☐

Thank You