Enhanced Reality

Ensuring consistent execution of procedures in industrial operations

Christian McDermott, US Country Manager
Complete automation in industrial operations is impossible
Are we working on the right things?

<table>
<thead>
<tr>
<th>CATEGORIES OF LOSSES</th>
<th>PROPORTION OF LOSSES ACROSS INDUSTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Changeover, no demand, rate/quality losses, production planning</td>
<td>66%</td>
</tr>
<tr>
<td>2. Poor operating practices, failure to operate the equipment or process in limits, inconsistencies in shifts due to capability issues</td>
<td>23%</td>
</tr>
<tr>
<td>3. Equipment Failure</td>
<td>11%</td>
</tr>
</tbody>
</table>
Reliability is about **people**, not only equipment

- Relating written SOP to reality
- Access to information
- Inadequate training
- Taking shortcuts
- Memorizing checklists
- Executing tasks out-of-sequence
- Environmental factors

Field operators have a **stressful** job in a high risk, high value, challenging environment
How can we help you go...

...from this

...to this?
We must think *beyond* training to *execution*

**Standard Operating Procedures**

**LEARNING**
- Millennials
- Learn by doing
- Self Assessment
- SOP proficiency
- Deal with attrition/churn

**PLANNING**
- Refresh knowledge
- Portable planning
- Shareable
- Improve turnarounds
- Immediate access to critical info

**EXECUTION**
- Field execution
- Step-by-step assistance
- Visually confirm SOP steps
- Any mobile device
- Eliminate execution errors
Visual demo: how a realistic replica of your assets can boost productivity and consistency

20 minutes of visual demos will be shown, some of which you can find on:

www.voovio.com

We will show some specific Instrumentation & Electrical demos in refineries and petrochemical facilities

Tablet devices will also be used

• Immediate access to site information
• Consistency & clarity in communicating tasks
• Practice any procedure on any screen as if you were on site = SOP proficiency
• Visual checklist on site using mobile device: verify every step
• Avoiding doubt or uncertainty: relate what you read to reality
• Have the confidence that you are executing everything correctly
• Know exactly where your lockout locations are
• Indirect and direct safety implications
• Retain knowledge within your organization
• Deal with attrition and churn
Let’s work on the right things **including** human reliability

Helping our field operators will help our shareholders
Thank You... Are There Any Questions?

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