Keepin’ it Real
A CII / COAA Panel Discussion

Glen Warren
Bill O’Brien
Stephen Mulva
Yogesh Srivastava
CII & COAA PANEL

• PAST – AWP - HOW DID WE GET HERE?
  ✓ Brief History

• PRESENT – WHAT IS HAPPENING NOW?
  ✓ Integration of CII and Fiatech
  ✓ Initiatives by CII members
  ✓ Initiatives by COAA AWP Committee

• FUTURE – WHERE DO WE SEE AWP GOING?
  ✓ New or Potential Initiatives
CII & COAA PANEL
WHAT GOT US TO WHERE WE ARE TODAY

WFP
IR 272
IR 319
WFP CONFERENCES
AWP CONFERENCES
FIRMS PROVIDING SOFTWARE SUPPORT TO AWP
FIRMS PROVIDING TRAINING
FIRMS PROVIDING SUPPORT FOR IMPLEMENTATION
Merged CII and Fiatech Organization

CII Board of Advisors (BOA)

- **D** - Director
- **AD-SL** - Associate Director for Sector Leadership
- **AD-SL** - Associate Director for Sector Leadership (in office)
- **AD** - Associate Director

**Communities for Business Advancement (CBA)**
- Funded Studies Committee (FSC)
- Strategic Planning Committee (SPC)
- Executive Committee (XC)

**Strategic R&D Outlook**
- Alliances & Globalization

**Overall Institute Operations**
- Finance
- Nominating

**Sector Leadership Committee (SLC)**
- Sector Governance and Leadership
- Sector Coordination
- Drive Sector Activities

**Legend**
- **Leadership Committee**
- **Standing Committee**
- **Communities for Business Advancement (CBA)**
- **Power, Utilities & Infrastructure (PUI)**
- **Upstream, Midstream & Mining (UMMC)**
- **Downstream & Chemicals (D&C)**
- **Facilities & Healthcare (FHC)**
- **Manufacturing & Life Sciences (MISC)**

**Support at Interface**

**Oversight**
- Technology Awareness Development Committee
  - Technology in Sector
- Drive/Supports
AWP Current Use and Path Forward

• CII members: AWP yields 12-15% productivity gain
  • Issues abound around project delivery (owner / contractor / supplier)
  • Missing: Owner, Sub, Supplier, Procurement, CSU Work Packages
  • AWP COP merging with Fiatech AWP PAT

• “Digital Twin”
  • AWP as Enterprise Resource Planning (ERP) for Capital Projects Industry (OS2, Production Processes, CAPEX & OPEX)
  • Suppliers’ role (Tier 1, Tier 2 strategy)
  • Supplier-led design (miniaturization vs. modularization)
  • Modeling and Simulation (vs. Project (un)Controls)

• Equation: Perceived value of challenger – perceived value of champion > perceived cost of change
Implementation

25% productivity, 10% reduction in TIC

- Is it real?
- YES!

Productivity:
- Time on tools
- Less rework
- More effective work

25% should be seen as the floor, not the ceiling for mature AWP organizations
TIC savings = field costs x productivity gain

• 10% = (40% cost of project)(25% productivity improvement)

Can we get there?
Alignment, early planning, consistency, field excellence
### The Questionable State of Education

**We are not equipping frontline supervisors for SUCCESS!**

<table>
<thead>
<tr>
<th>Type</th>
<th>General Foremen (n=297)</th>
<th>Foremen (n=714)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory Skills</td>
<td>90.91%</td>
<td>85.71%</td>
</tr>
<tr>
<td>Safety</td>
<td>82.82%</td>
<td>75.63%</td>
</tr>
<tr>
<td>Effective Communication</td>
<td>60.27%</td>
<td>47.76%</td>
</tr>
<tr>
<td>Scheduling</td>
<td>46.80%</td>
<td>29.69%</td>
</tr>
<tr>
<td>Quality Control</td>
<td>42.76%</td>
<td>36.83%</td>
</tr>
<tr>
<td>Time Management</td>
<td>37.71%</td>
<td>27.17%</td>
</tr>
<tr>
<td>Estimating</td>
<td>30.64%</td>
<td>17.93%</td>
</tr>
<tr>
<td>AWP/WFP</td>
<td>18.86%</td>
<td>15.13%</td>
</tr>
<tr>
<td>Lean Construction</td>
<td>15.15%</td>
<td>14.71%</td>
</tr>
<tr>
<td>3D/BIM Model</td>
<td>10.10%</td>
<td>4.48%</td>
</tr>
<tr>
<td>Time Motion Studies</td>
<td>5.72%</td>
<td>4.62%</td>
</tr>
</tbody>
</table>

Self reported – quality/scope of training uncertain

Source: CII RT330
TIC savings = field costs x productivity gain

• 10% = (40% cost of project) (25% productivity improvement)

Can we get there?
Alignment, early planning, consistency, field excellence

Need to add supply chain as field hours moved offsite
Savings = field + supply chain
This is the current direction of several Fiatech, CII efforts
2017 INITIATIVES BY COAA COMMITTEE

1. ROI for AWP Implementation
2. Scalability of AWP
3. Definition and Processes for PWP
4. Rules of Credit for EWP
5. Mindfulness – How to get the buy-in
6. Review Path of Construction
CII & COAA PANEL
WHERE DO WE SEE AWP GOING?

POTENTIAL COAA INITIATIVES

1. Guidelines for AWP Database (Datacentricity)
   • Lead to development of app for AWP
2. AWP Prequal at level of Safety and Quality
3. More guidelines on “Soft” aspects for Implementation Success
4. KPI’S
   • To use as a Leading Indicator
   • To use as a means to provide Incentives in Contract
5. Auditing Process to Support AWP
6. More case studies for Lessons Learned
7. Owner’s being less prescriptive (AWP)
CII & COAA PANEL

Q & A