Effectively Leveraging Big Data in Capital Projects
Panel Discussion with Industry Experts
Effectively leveraging big data in capital projects

Facilitator
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Panel Members

Chris Dill
Vice President and CIO

Jan Shumate
Director - Worldwide Engineering & Construction Services and Solutions

Josh Girvin
CEO
O3 Solution
Grounding: The productivity opportunity in construction

Construction matters for the world economy... but has a long record of poor productivity

Construction-related spending accounts for 13% of the world’s GDP, but the sector’s annual productivity growth has only increased 1% over the past 20 years.

$1.6 trillion of additional value added could be created through higher productivity, meeting half the world’s infrastructure need.

Globally, labor-productivity growth lags behind that of manufacturing and the total economy

Source: McKinsey Global Institute: Reinventing Construction - A Route to Higher Productivity
We surveyed ECC Future Leaders - who represent a diverse set of capital project practitioners...

**Industry Sector**
- Downstream: 63%
- Upstream: 17%
- Midstream: 9%
- Other: 9%
- Infrastructure: 3%

**Industry Role**
- Project Management: 40%
- Business Development: 26%
- Engineering Management: 11%
- Construction Management: 9%
- Operations: 9%
- Software Developer: 3%
- Procurement / Supply Chain: 3%

**Industry Experience**
- 0-5 years: 3%
- 6-10 years: 23%
- 11-15 years: 26%
- 15-20 years: 20%
- >20 years: 29%
...there is broad consensus that data management represents a big opportunity to improve capital project performance

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<tr>
<th>Within your current role, which of the following best describes your experience with data?</th>
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<td>Data not readily available / incomplete; requires significant effort to be used for decision making</td>
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<th>What large data sets in capital project execution are the best candidates to automate?</th>
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<td>Field progress in construction / construction KPI’s</td>
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<th>Where areas are your current data needs focused?</th>
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<td>Productivity / Performance</td>
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Panel Question 1: Big data initiatives

- What big data initiative(s) is your organization undertaking to improve capital project performance?

  and

- What are the associated business drivers?
Panel Question 2: Data management

- How does your organization instill confidence within the project team(s) that the data collected and utilized is correct?
  
  *and*

- What organization structure and processes are in place to ensure compliance or target corrective action?
Panel Question 3:
Change Management & Lessons Learnt

- In terms of organizational Change Management, what were some of the key challenges and how did you overcome these?

  or

- In terms of lessons learned, what are some of the key items which would be beneficial to share with our audience?
Panel Question 4: Looking into the future

- What other technology is on your organizations radar?

and

- How will it target further productivity & performance improvements?

Reference: Gartner: Top 10 Strategic Technology Trends for 2018
Effectively leveraging big data in capital projects – open forum

Open Forum – Questions from the audience

• Jan Shumate: Seamless Engineering Information Global Access

• Josh Girvin: Advanced Work Packaging & WFP

• Chris Dill: Construction Management: Project Controls & Estimating