



Rice Global E&C Forum
**Engineering &
Construction**



2017 RICE GLOBAL E&C ANNUAL FORUM



Engineering

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ENGINEERING INDUSTRY TRENDS

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- Gaps in industry training & commitment to technical excellence.
- Industry delegated innovation to technology providers & licensors.
- Licensors & process technology companies slowed investing & only addressed legislative or environmental needs.
- Lots of “trendy” trends pushed by suppliers, owners or EPC companies, some were great ideas, but did not last, or funding did not materialize.

ENGINEERING INDUSTRY TRENDS

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- Economic cycles also had a significant impact on new ideas & innovation.
- Technology and IOT in other industries have advanced at great speed, while we continue to do the same.
- The next 20-30 years are going to be driven by new technologies and start-ups that will change the way we live and work.

Question:

Other trends?

CHALLENGES

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- Young graduates no longer view our industry as a great, long term career.
- Procurement in owners organizations is still “driving out” cost and destroying innovation and efficiency.
- Driving risks to contractors with less experienced personnel on all sides (owners, suppliers & contractors) is a recipe for disaster.
- Uncertainty will reign – (1) Price of crude (2) Geopolitics (3) “Clean” energy (4) Corruption

Question:

What are we doing to attract young talent?

Will Latin America get its act together?

OPPORTUNITIES

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1. IOT and data analytics is slowly catching on in our industry.
2. New graduates bring the expertise & open mind-ness to innovate & improve everything we do.
3. Low oil & natural gas prices are causing industry to standardize in refining similarly to what happened in petrochemicals a few decades ago.
4. Innovation is now a “must” in order to grow (and survive), but needs to become a standard part of doing business.

OPPORTUNITIES

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5. Progress in dealing with corruption in some parts of the world will bring new opportunities.
6. Higher education is definitely seeing the need for change and are bringing in new technologies, innovation, big data & more multi-discipline engineering
7. Industry (those who are smart) see the need to integrate EPC, drive standardization & focus on running very efficient facilities (which is where the profits are!)

Question:

Who will be the Uber to our industry?

Is your company addressing innovation & new technology/systems effectively?