

## Review of the CII Annual Conference - 2017



The CII Annual Conference was held from 31 July to 3 Aug 2016 at the JM Marriott Grand Lakes, Orlando, Florida, USA. The theme of the conference was “**Innovate. Disrupt. Transform – Unleashing Capital Project Business Value**”, focusing on productivity in the engineering and construction industry and the potential of disruptive approaches and technologies that could impact the industry.

The world of business, and society as a whole, are experiencing disruptive ‘forces’ that is changing the way economies function and develop. The likes of Uber, AirBnB, renewable energy, artificial intelligence are well known but when an app such as Snapchat have a market capitalisation 3x that of Fluor then our industry needs to ask questions about value and its position in the market. Amazon

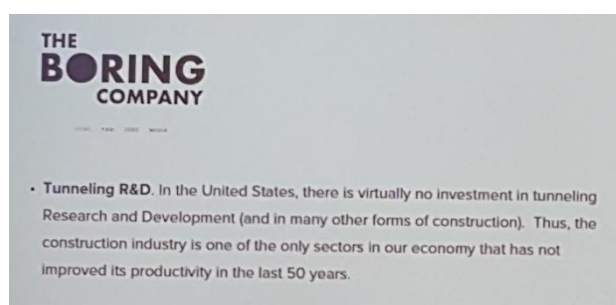
just acquired retail stores and Elon Musk entered the engineering and construction industry by establishing The Boring Company that will drill tunnels for high speed manned capsules (for which he obtained government approval within 29 minutes of his presentation). If the engineering and construction industry is not going to transform itself from within it will be done from outside.

***The emergence of disruptive forces and low level of productivity necessitate our industry to think less like engineers and more like business people.*** – Stephen Mulva, Director - CII



In order to improve agility organisations will have to:

- Flatten the supply chain, deplete the hierarchy of functional and business units and adopt an approach of collaboration instead of pure coordination. This should result in less transactional cost and less procurement packages.
- Stretch each Dollar – even though not a new concept cost consciousness will become even more dominant in a low cost, competitive environment where the focus on productivity will escalate.
- Shrink – smaller footprint for plants and buildings. Miniaturization to replace or compliment modularisation.



During a panel discussion on the *Future Innovations Impacting our Industry*, Felipe Barbosa from McKinsey and Co mentioned more than a 1000 construction technology companies have emerged in the past few years. They estimate that fossil fuels will reach peak by 2025 with chemicals continuing a bit longer. Construction companies are investing heavily in technology, appointing more digital and data management professionals and services.

Manish Chalwa from IBM believes that data is becoming the world's next 'natural resource' with companies harvesting data to make better predictions of how a project will progress. In order to adapt to these changes Greg Bentley (Bentley Systems) believe that software companies will leverage more on cloud services while also moving away from software licensing to Service Level Agreements with customers to share in project success or failure.

The panel agreed that the future of the industry will be characterised by smaller, more efficient facilities, leveraging of data, more turnkey projects and closer collaboration across the value chain.

The discussion on the importance of data was concluded by Billy Bean – Head Coach of Oakland Athletics Baseball Team and the coach on which the movie Moneyball was based. He mentioned that all but two of the major league baseball teams are managed by non-players. The management of these teams are now run by statisticians, analysts and mathematicians.

## Restructuring of CII

The restructuring of CII into functional clusters are now completed. The clusters are functioning on their own and comprise of the following:

- PUIC – Power, Utilities and Infrastructure Committee
- UMMC – Upstream, Midstream and Mining Committee
- DCC – Downstream and Chemicals Committee
- HBC – Healthcare and Buildings Committee
- MMLC - Manufacturing, Metals and Life Science Committee

## Research Teams

A total of seven Research Teams presented their finds. The research presented were:

RT 317 - Improving Safety Performance through Operational Excellence

RT 331 - Assess the Maturity and Accuracy of FEED to Support Phase-Gate Approvals

RT 313 - Quality Made Measurable - A Paradigm Shift

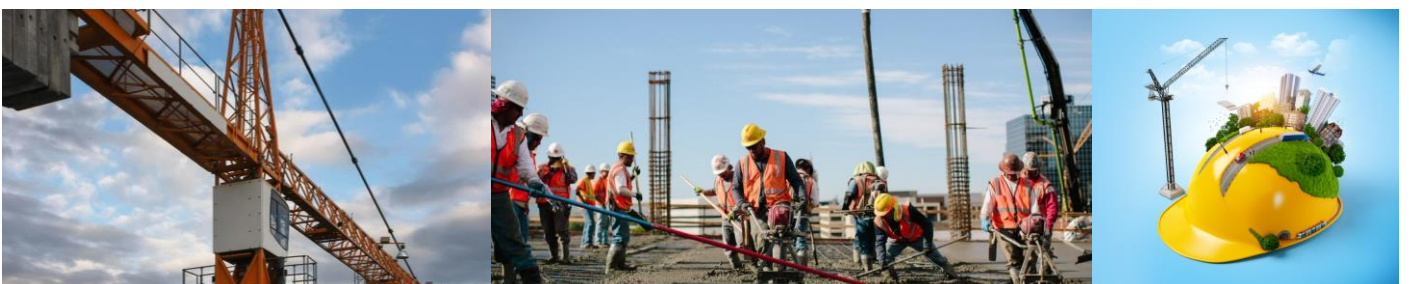
RT 333 - Managing transitions between Construction, Commissioning and Start-up (CCSU)

RT 332 - Measuring Progress and Defining Productivity Metrics in Model-based Engineering

RT 330 - Improving Frontline Supervision in Industrial Construction

RT 334 - Best Practices for Preventing Out-of-Sequence (OOS) Construction Activities and Minimizing their Impacts

Publications and tools of the above research is downloadable from the CII website.



## African contingent growing

This year's conference welcomed back Sasol, represented by Richard Nolan and Maloke Ngubane. For the first time Exxaro attended the conference through Mervin Govender and Dirk Laubscher. All participants found the conference topics thought provoking and left with some ideas to ponder on their respective projects or general approach to project management.



Regards

*Dr Giel Bekker*

Director

