

Optimizing efficiency through digitalization in chemicals, petrochemicals and refining
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1. Please introduce your role at Ingenero

I am the President & CEO of Ingenero.

2. What does the subject of digital transformation and IoT mean to you?

To us, Digital transformation is the setting up of business processes that spells out what organizations do with the information that is made available digitally and how it is utilized to make decisions that add value. IoT is the realization of a digital and interoperable ecosystem of machines and people.

3. What's the greatest impact IoT, data analytics and AI will have on the industry? What lies ahead of operators and how will they adapt?

IoT, data analytics and AI will make consistent decision quality information available readily to all, to make right decisions in a timely manner. With the availability of information the iterative nature of decisions to actions to results across the organization will reduce.

4. How do you see the role of the Industrial Internet of Things in refining, petrochemicals & chemicals? What are the key benefits and opportunities of using IIoT solutions in downstream operations?

IIoT will enable ready access of sensor data to and from remote locations. This will enable deeper and quicker analysis and interpretation of the data, by taking data to the experts instead of having the experts go to the data, which is not always feasible and often time consuming.

5. How will this paradigm shift affect talent in manufacturing & downstream industry overall?

Specialized talent in the downstream industry need not be located at the site and multi-disciplinary experts can bring to bear their expertise to remote locations, without having all of them to be under one roof, which is often not feasible.

6. What does workplace innovation look like at your organization?

Analytics support as a service and collaboration between teams spread across various locations and geographies.

7. How does this impact your customers?

This will enable more focus on actually delivering results, by having to worry about fewer things that are not in one's core result area.

8. What are the latest technology adoptions by downstream operators in Asia? Are there any success stories that other operators can learn from?

The latest technology adoption is the development and maintenance of a Digital Twin, which is a synergistic combination of Machine learning and fundamental models, used to do daily analysis and what-ifs.

9. What Does Industry 4.0 mean for your company?

Leverage technologies like, Big Data Analytics, Predictive Digital Twins, Better visualization through interactive dashboards and IoT/P for collaborative remote operations engineering.

10. Will Artificial Intelligence replace humans working in oil and gas?

It will slim and shift humans from certain tasks to higher level work.

11. What is the current state of cybersecurity preparedness across refining, petrochemicals and chemicals and how is the cybersecurity market set to evolve?

Cyber security is a rapidly evolving area trying to keep pace as business processes change to tap into the enhanced computing and connectivity at a fraction of the costs, in order to improve efficiencies.

12. Are manufacturers concerned about cybersecurity in their organization?

Yes. However, this can be addressed through rapidly evolving security systems. Adherence to security measures and usage behaviour typically covers a major portion of the risk.

13. What impact does Big Data have on operational efficiency and how is Big Data changing the industry?

Big Data analysis using Machine learning algorithms in conjunction with fundamental knowledge models, will enable capture of insights not otherwise seen, early attention to anomalies and actions to be taken that may otherwise slip attention, improved efficiency and Reliability of operation.

14. What are your views on Asia's downstream industries rate of digitalisation as compared to counterparts in other regions i.e. America, Europe and the Middle East markets?

Adoption in existing facilities lags these regions on an average. New facilities coming up have above average digitalization compared to the existing plants in these regions.

15. With these radical changes looming what opportunities lie ahead for manufacturers?

Opportunity to improve efficiencies and have faster realization times to action, by incorporating the Industry 4.0 technologies and associated business process changes.

16. What will the future workforce look like in the digital age?

More digitally savvy, being able to use digital twins to think through actions rapidly, without directly testing "in-vivo".

17. What will be the highlight of your presentation at Asian Downstream Summit 2018?

The highlight of my presentation will be on the paradigm changes to managing Process Manufacturing Operations, required for Digitalization success.