



When Aerospace met Oil & Gas: two industries meet at Systems Engineering conference

A sold-out audience of 120 people from the Aerospace and Oil & Gas industries attended the International Council on Systems Engineering (INCOSE) Texas Gulf Coast Chapter (TGCC) Inaugural Conference in Houston on May 5, 2017.

Earlier this year, INCOSE kicked off the new Oil & Gas working group, which is chaired by Shell and GE Oil & Gas. The working group, with an international reach, has developed a close relationship with the local INCOSE Texas Gulf Coast Chapter (TGCC). These INCOSE organizations brought Houston' two best known industries together to share best practices on Systems Engineering.

Systems Engineering is a structured engineering approach which centers around the definition and verification of clear requirements. The Aerospace sector has been applying systems engineering to its complex design and build processes for many decades. The community possesses a wealth of experiences, lessons learned and best practices, and it has been a true partner to the Oil & Gas industry as we start on our Systems Engineering journey.

The systems designed and built in the oil and gas industry are equally complex. Systems Engineering connects the disciplines required to design and build a space station or an oil platform. As data, interfaces, and complexity increase in our engineering applications, the role of Systems Engineering becomes increasingly important. The figure below illustrates some of the shared dilemmas between the Aerospace and Oil & Gas industries.

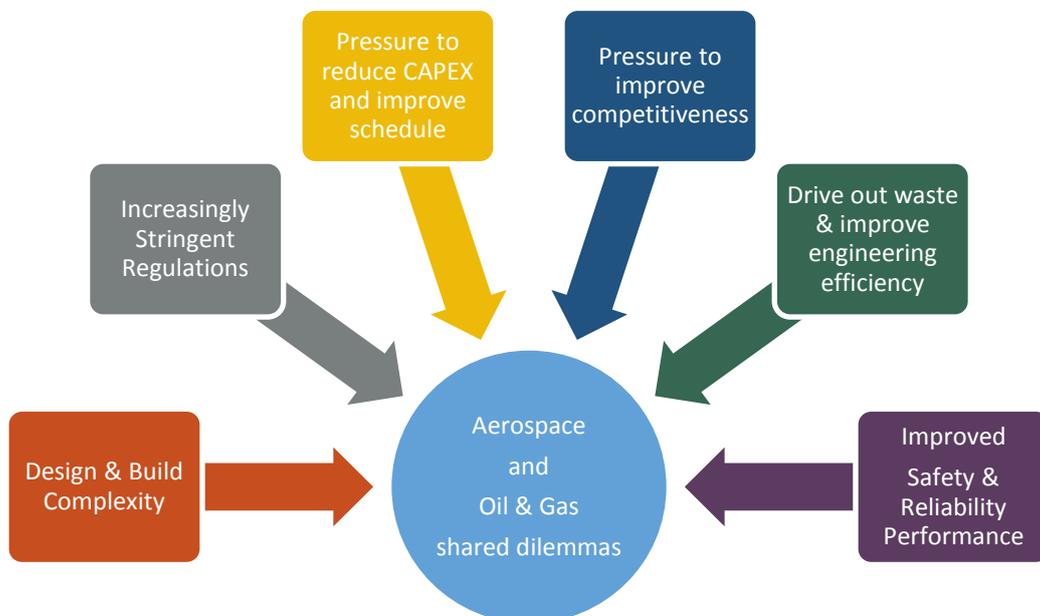


Figure 1. Aerospace and Oil & Gas Industries Shared Dilemmas



"Our broad intent is to apply Systems Engineering practices in the Oil & Gas industry to make a significant and sustainable change in capital efficiency, engineering productivity, process safety, and asset performance."

Mia Zager, INCOSE Oil & Gas Co-Chair & Shell General Manager, Systems Engineering



"The International Space Station is made up of hardware built all over the world that has never been connected until it arrives in orbit above our earth. Without disciplined systems engineering, an achievement such as the space station would not be possible."

Kirk Shireman, International Space Station Program Manager



"Systems Engineering will fundamentally reshape the way we work, empower our people to unlock productivity, and unleash creativity. It will allow us to have better solutions that increase both our performance and competitiveness."

Robert Patterson, Shell Executive Vice President, Engineering

Participants attended a full day of informative technical sessions presented by Systems Engineering professionals who identified opportunities to address needs and capabilities, and to share best practices. Sessions covered success stories from the Oil & Gas Sector and how Systems Engineering can help to enhance safety and to manage requirements and outcomes in our world of increasingly complex systems.

"The success and broad participation in our inaugural conference demonstrates an enthusiasm to share and advance the state of systems engineering across both aerospace and oil and gas here in Houston," explained Robert McAfoos, President of Barrios Technology and INCOSE TGCC..

For more information on conference papers or to join INCOSE TGCC, please visit:
<http://www.incose.org/ChaptersGroups/Chapters/ChapterSites/texas-gulf-coast/chapter-events/conferences/tgcc-2017-conference/conference-programs>
