National Engineering Forum (NEF) Regional Dialogue: Engineering Thought Leadership
Raleigh, North Carolina at NC State University
March 26, 2014

Overarching Mission:

Lockheed Martin, the Council on Competitiveness, and the National Academy of Engineering launched the National Engineering Forum to address three engineering challenges in the United States: the *capacity* of our technical talent to fill current and future jobs, our engineering workforce's *capability* to address 21st century challenges, and our nation's *competitiveness* on the world stage. A series of regional dialogues is creating a grassroots network of key influencers from academia, business, government, and the media, and students. Their sustained input is shaping the NEF agenda, helping turn findings into action. The regional dialogues will culminate in a national cornerstone event.

The regional dialogues provide NEF with a nationwide survey of thought leaders, and enable a dynamic view of both the past and current state of engineering based on the expertise of those best positioned to help address the three engineering challenges. These sessions provide a platform for an engaging narrative that appeal to students and engineering professionals alike.

Key themes from the Raleigh-Durham Regional Dialogue:

Leaders from industry, academia, government, and the media participated in the NEF regional dialogue event on the campus of North Carolina State University, hosted by Duke University's Pratt School of Engineering and the NC State University College of Engineering and NC State Chancellor, Dr. Randy Woodson. Jim Rogers, former president and CEO of Duke Energy, gave the keynote and the dialogue in Raleigh embraced the diversity of people, industry, and companies of the Research Triangle. The area's engineering successes include major research universities and leading entities in biomedical research, IT, clean tech, and energy and smart grid innovations. Discussions focused on addressing the need to expose K-12 students to engineering and increase collaboration between industry and universities; the need to retain engineering talent locally; ways to capitalize on the unique cultural, educational, engineering, medical and agricultural resources in the region; and the need to revitalize national interest in and respect for the field of engineering, particularly in highlighting the ways it benefits society.

Key action items that emerged in the dialogue:

- Think long-term about how policy affects education and industry; avoid short-sighted solutions.
- Improve the current state of research and development tax credit; incentivize industry to invest in university research by 2x, 5x, 10x research tax credits.
- Educate everyone about engineering, including students, professors, and industry leaders.
- Concentrate efforts on innovation engineering education in K-12, for example a "Shark Tank" pitch for 5th graders to share their own ideas.
- Develop a more standardized engineering curriculum allowing students to experience the field before deciding whether to pursue an engineering career. In addition, engineers should reach out to students and share their experiences in technical/engineering endeavors.

Word Cloud based on conversations at the Raleigh-Durham regional dialogue March 26 in Raleigh, NC, at NCSU.