



**NATIONAL ENGINEERING FORUM (NEF) REGIONAL DIALOGUE:  
ENGINEERING THOUGHT LEADERSHIP**  
**San Diego, CA at the University of California San Diego Scripps Institution of Oceanography**  
**October 10, 2013**

**Overarching Mission for Year One:**

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 will create grassroots networks of key influencers from academia, business, government, and the media, as well as students. Sustained input from these groups will make an impact on the NEF agenda, helping turn findings into action. The regional dialogues will culminate in a national cornerstone event.

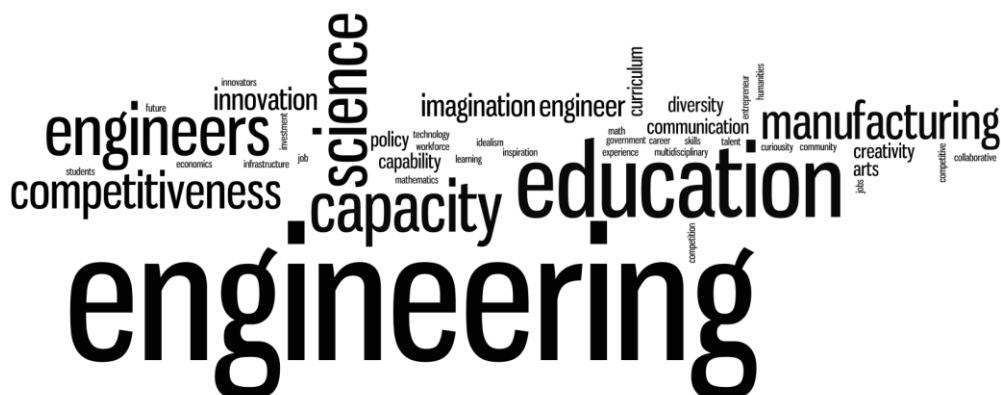
The regional dialogues provide NEF with a nationwide survey of thought leaders, and enable a dynamic view of both the past and current state of engineering based on the expertise of those best positioned to help address the three engineering challenges. These sessions provide a platform for an engaging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

**Key themes from the University of California San Diego Dialogue:**

Fifty-Five leaders from industry, academia and the media participated in the NEF regional dialogue event hosted by University of California San Diego. Discussion focused on the skills needed for the future engineering workforce and how these demands relate to the current education system. At the K-12 level, this dialogue explored the current STEM engagement level and focused on how engineers can promote a positive impact on society. Relating to higher education, this dialogue also identified opportunities to supplement core bachelor's level curricula, with project-based activities, to prepare students for the workforce. For early-career professionals, participants targeted continued education opportunities in the areas of technology, systems engineering, and business leadership. To reinvigorate U.S competitiveness, participants explored how to invest in advanced manufacturing as a way to reduce costs.

**Key action items that emerged in the dialogue:**

- Invite female role models from industry to inspire K-12 girls to STEM careers.
- Collaborate with middle and high school guidance counselors to address the best course pathway to engineering school.
- Consider ways that schools and universities can incorporate engineering across curricula to demonstrate its impact.
- Work locally to identify gaps in STEM education and generate regional excitement for STEM.
- Create hybrid education courses with real-world project based experiences to give graduates exposure to industry.
- Identify local capital and build awareness for investment in talent and entrepreneurial ventures to attract more start-ups in advance manufacturing to San Diego.



Word Cloud based on discussions on October 10, 2013 in San Diego at the University of California, San Diego.