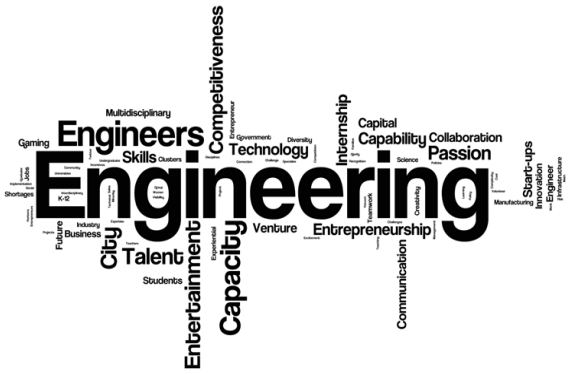
NATIONAL ENGINEERING FORUM

National Engineering Forum (NEF) Regional Dialogue: Engineering Thought Leadership
Los Angeles, CA
June 11, 2013

Overarching Mission:
In 2012, 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. 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 Los Angeles Regional Dialogue:
Eighty-five leaders from Los Angeles and around the country participated in the fourth NEF regional dialogue hosted by the University of Southern California Vertibi School of Engineering. Continuing the progressive engineering conversation launched in 2012, this dialogue made the case for a robust enterprise of innovative, creative engineers as the foundation for economic inclusion and growth. Discussion focused on LA's strengths and challenges, its history in the nation's 20th century global engineering dominance, and its engineering future, particularly the evolution of the region's industrial base – a changing manufacturing profile with an engineering-heavy services and entertainment ecosystem – and implications for long-term competitiveness and prosperity.

Key action items that emerged in the dialogue:
- Focus four-year undergraduate curricula on achieving "deep" engineering/technical skills and exposure to differentiating skills (finance, entrepreneurship, project management, business development, communications).
- Rethink traditional paths for students who want to study engineering and STEM at liberal arts schools. Emphasize the power of multiple disciplines.
- Strengthen ways for universities/colleges and industry to co-develop internships and mentorships linked to areas underpinning innovation: sales, marketing, communications, etc. "Subsidize" students with college credit.
- Identify local capital and build awareness for investment in talent and entrepreneurial ventures. Cultivate LA-based network of angel and venture capital, socialized to long-term play for manufacturing industries.
- Work with public and private-sector to "manage expectations." Every region has assets. LA innovation and engineering stakeholders should create a consolidated "cluster strategy" to provide visibility to investment opportunities and attract the investment community and the best local/national/global talent.
- Learn from and partner with the engineering-dependent entertainment and culture industry to increase engineering's visibility and "cool factor."
- Redouble efforts (recruitment, internships, mentorships, industry/executive retention strategies) to attract women and other minority communities to engineering.



Word Cloud based on discussions June 11, 2013 in Los Angeles.