National Engineering Forum (NEF) Regional Dialogue: Engineering Thought Leadership
Greater Phoenix Region hosted by Arizona State University
February 19, 2015

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, the media, and 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 Phoenix regional dialogue

Leaders from industry, academia and government participated in the NEF regional dialogue event at SkySong, the ASU Scottsdale Innovation Center, hosted by Arizona State University. Doug Davis, senior vice president and general manager of the Internet of Things Group at Intel, provided the evening's keynote remarks, highlighting the engineering opportunities and challenges facing the Greater Phoenix region. Attendees identified the region's attractiveness to new companies as its abundance of low-cost land, business friendly government and regulatory environment, deep national defense and aerospace foundation, and strong university system. Still, businesses struggle to attract top talent as engineers are pulled west by higher salaries, availability of venture capital, and the rich innovation ecosystem of Silicon Valley. While dialogue participants recommended changes commonly called for by engineering stakeholders across the country – boosting diversity in the STEM fields and immigration reform – the group focused on ways to strengthen the local innovation ecosystem as a path to boosting the quality and quantity of engineers in the Greater Phoenix region.

Recommendations that emerged in the dialogue

- Leverage the local community of accomplished retired chief executives – a distinctive local advantage – to provide engineers and entrepreneurs with mentorship services.
- Increase industry engagement with universities through guest lecturers, company-designed capstones, and industry-funded scholarships.
- Include middle and high school students in university-level, project-based engineering curriculum.
- Encourage sharing of non-sensitive, pre-competitive information among innovation institutions to strengthen the regional ecosystem.
- Partner across sectors and organizations to create financial incentives to retain regional top talent.
- Expand public transportation infrastructure to connect cities comprising the Greater Phoenix region.