National Engineering Forum (NEF) Regional Dialogue: Engineering Thought Leadership
Greater Chicago Region hosted by the University of Illinois
October 30, 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, 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 Chicago regional dialogue

Leaders from industry, academia, government, and the media gathered at the Museum of Science and Industry for the NEF regional dialogue. Hosted by the President of the University of Illinois and a host committee representing Chicago's top engineering and business colleges, this regional dialogue exemplified the multilateral approach needed to assure the health and sustainability of the U.S. engineering enterprise. Steve Koch, City of Chicago deputy mayor, provided the evening's keynote remarks, setting the stage for the robust dialogue that followed. Attendees cited talent retention as the primary challenge facing Chicago's engineering community. Chicago has no shortage of assets: world-class universities, national laboratories, strong cyber and physical infrastructure, geographic location, high quality of life, public amenities, and a Midwest work ethic. Yet, attendees observed, the region's brightest engineers are creating intellectual property in Chicago and moving elsewhere to start their businesses. Other themes included the important contributions that immigrants have made to Chicago's economy, the emerging start-up and entrepreneurship community, challenges in Chicago's K-12 system, and the importance of industry-university-government partnerships – such as the newly launched Digital Manufacturing & Design Innovation Institute – to knitting together the region's resources for shared prosperity.

Recommendations that emerged in the dialogue

- Enact immigration reform that will keep the world's best engineers in the United States.
- Incentivize university-industry partnerships by linking academic tenure to industry outreach, including industrial sabbaticals for professors.
- Expand access by engineering students to internships and cooperative education.
- Reorient engineering curriculum to increase social relevancy.
- Encourage community colleges to act as feeders for university engineering programs.