

Breakout Session #1: Next Engineering Grand Challenges

Thursday, June 24, 6:45-7:30 PM ET; Friday, June 25, 7:45-8:30 AM JST

Reference: The National Academy of Engineering convened an international group of leading technological thinkers to identify the [Grand Challenges for Engineering](#) in the 21st century. The 14 game-changing goals for improving life on the planet announced in 2008 were:

- Advance personalized learning
- Make solar energy economical
- Enhance virtual reality
- Reverse-engineer the brain
- Engineer better medicines
- Advance health informatics
- Restore and improve urban infrastructure
- Secure cyberspace
- Provide access to clean water
- Provide energy from fusion
- Prevent nuclear terror
- Manage the nitrogen cycle
- Develop carbon sequestration methods
- Engineer the tools of scientific discovery

Goal: Consider the following: Looking to the next 5-10 years, what are the **top three** Grand Challenges for Engineering we face? Think beyond the 14 listed above. Are there challenges that should be prioritized and/or new ones added to the list? Where are areas of consensus?

Deliverable: During this moderated session, each group will be asked to develop a list of three areas that should be on the list of an updated list of Grand Challenges for Engineering. Moderators will report on what the group decided on Day 3 of the symposium.