Education for Engineering Education

Rich Holder President & CEO
80% of the companies believe their overall **business would increase** if their staff had more **international expertise**

An appreciation for **cross-cultural differences** is the most **important international skill** sought by companies.

The National Academy of Engineering states that a **core need** for engineers is to **be able to work with a diverse, multinational, multidisciplinary workforce**

Engineers need to have a **global mindset** and be prepared for the global job market.
Value Proposition

Global Reach
- 42 Facilities on 4 Continents
- Full service in every region
- Global Supply Chain Management

High Precision Manufacturing
- Precision capabilities to less than one micron
- 7 Billion+ components produced annually
- In-house machine & tool building

Engineered Solution Provider
- Application specific, co-design capability
- Total life cycle support
- 4 Innovation Centers around the globe

Comprehensive Portfolio
- World-class process technologies
- Applications and Design expertise across multiple industries
- Wide reaching product offering: mission critical components to finished assemblies
Key Takeaways:

Global Environment
Within the global environment, engineers must function within multicultural & multidisciplinary teams.

Revenue Growth
As a global organization, NN believes engineers must have cultural awareness.

Consistency
Globality can and should be developed as a part of the educational criteria.

Balance
- Geography
- Economic Cycle
- Businesses

Our Engineers must perform on the global stage.
Grid infrastructure (T&D Automation) will fuel growth through 2025, led primarily by China HVDC transmission build-out ($7.3B Chinese Stimulus funding).

China viewed as early-adopter of Smart Grid automation at Transmission & Distribution level.

Smart Meter market roll-out ongoing in EMEA, China (APAC) and Americas.

EMEA efforts driven by “Green” legislation and culture.

Demand Response enters aggressive growth period in 2018+.

PEV infrastructure accelerates throughout decade ($900M in 2017; $9B in 2027).

Cumulative Smart Grid spending projected to be $200B+ through 2020.
The point is: engineers have to understand the global economic and cultural environment so they can design truly global products.
Importance of Global Engineering Competency

The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

An ability to design within cultural constraints including economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

Ability to function on multidisciplinary teams

Knowledge of contemporary issues

Ability to communicate effectively
Thank You