

#### Department of Defense

 
 Over 1.4 million active duty men and women

# Over 1.1 million Guard & Reserves Over 737,000 civilians

**Our Mission: Protect our** National Security **Provide the** military forces needed to deter war and prevail in conflict

## **DoD Engineering Enterprise**



## World's Largest Engineering Organization Over 100,000 Uniformed and Civilian Engineers Over 39,000 Acquisition Corps Certified

Systems Engineers (SPRDE)



#### **Engineering Challenges**

## Managing Complexity

#### Managing Risk

Growing Future Engineering Leaders

#### Managing Complexity

#### **The Engineering Design Process**

## **Engineering Fundamentals**

Adequacy of Tools

#### **Engineering Challenges**

## Managing Complexity

#### Managing Risk

Growing Future Engineering Leaders

## **Growing Great Engineers**

#### Breadth

- Awareness of and appreciation for other functional areas
- Understanding of system lifecycle and processes
- Knowledge of other engineering disciplines and how they integrate into a system solution
- Knowledge of product domains

#### Depth

 Extensive expertise and experience in one or more engineering disciplines and in one or more product domains

#### Leadership

- Ability to motivate and inspire individuals and teams
- Comfort in dealing with complexity
- Focus on underpinning decisions with data
- Capability to make tough technical decisions

#### Workforce Demographics



#### Opportunities

#### **Better Tools**

#### New Approaches to Engineering Education

#### **Growing an Engineering Culture**



#### Thank You