



# **Panel: Systems Engineering Degrees and Certificates ~ What Is The Right Mix for Industry and Government**

**Mr. Nicholas M. Torelli**

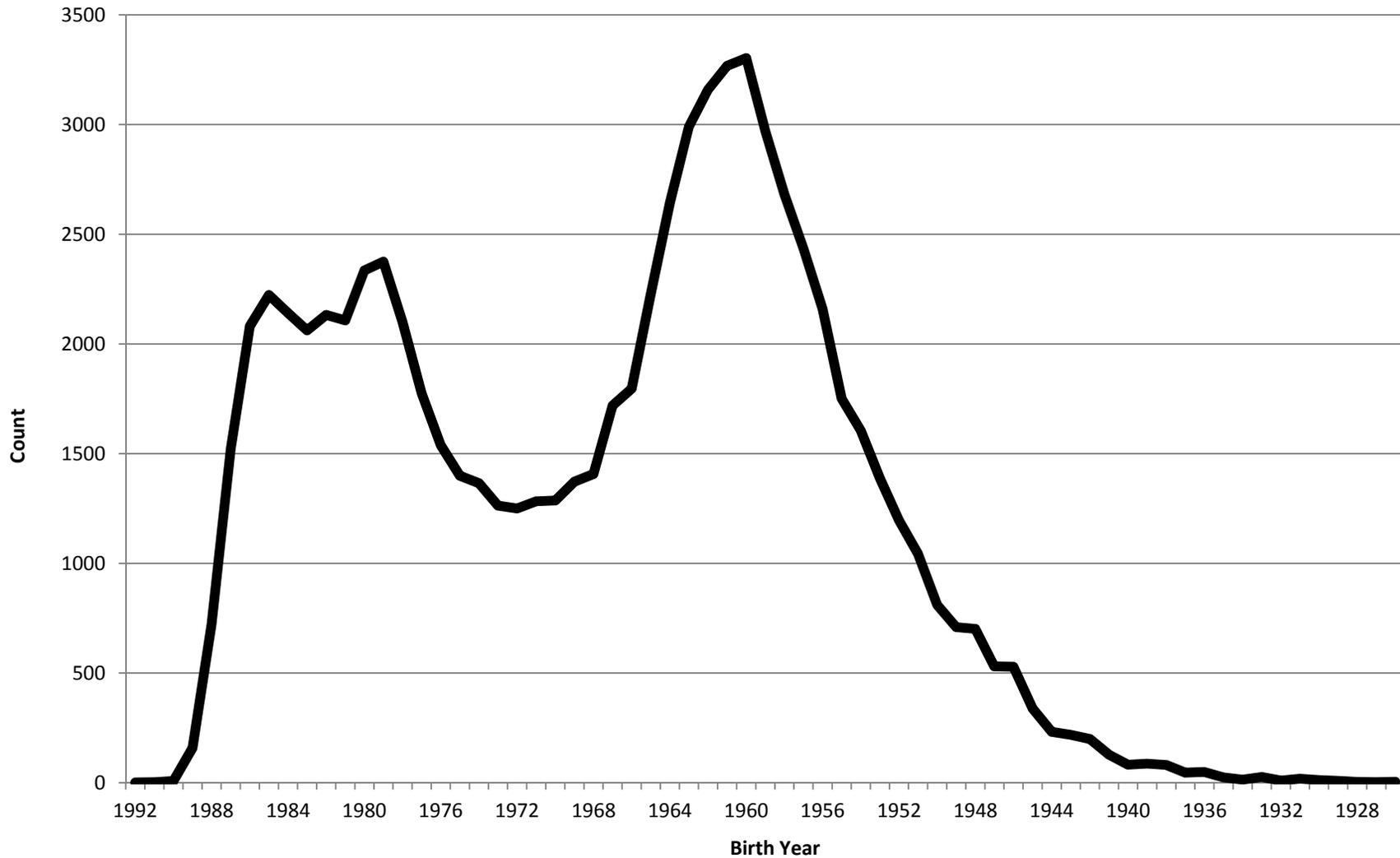
**Director, Mission Assurance**

**Office of the Deputy Assistant Secretary of Defense  
for Systems Engineering**

**15th Annual NDIA Systems Engineering Conference  
San Diego, CA | October 24, 2012**



# Systems Engineering Acquisition Workforce\* by Birth Year



Source: AT&L Acquisition Workforce DataMart, Dec 2011

\*Excluded: 222 personnel with unknown Birth Year



# Growing Great Engineers



- **Depth**

- Extensive expertise and experiences in one or more engineering disciplines and in one or more product domains

- **Breadth**

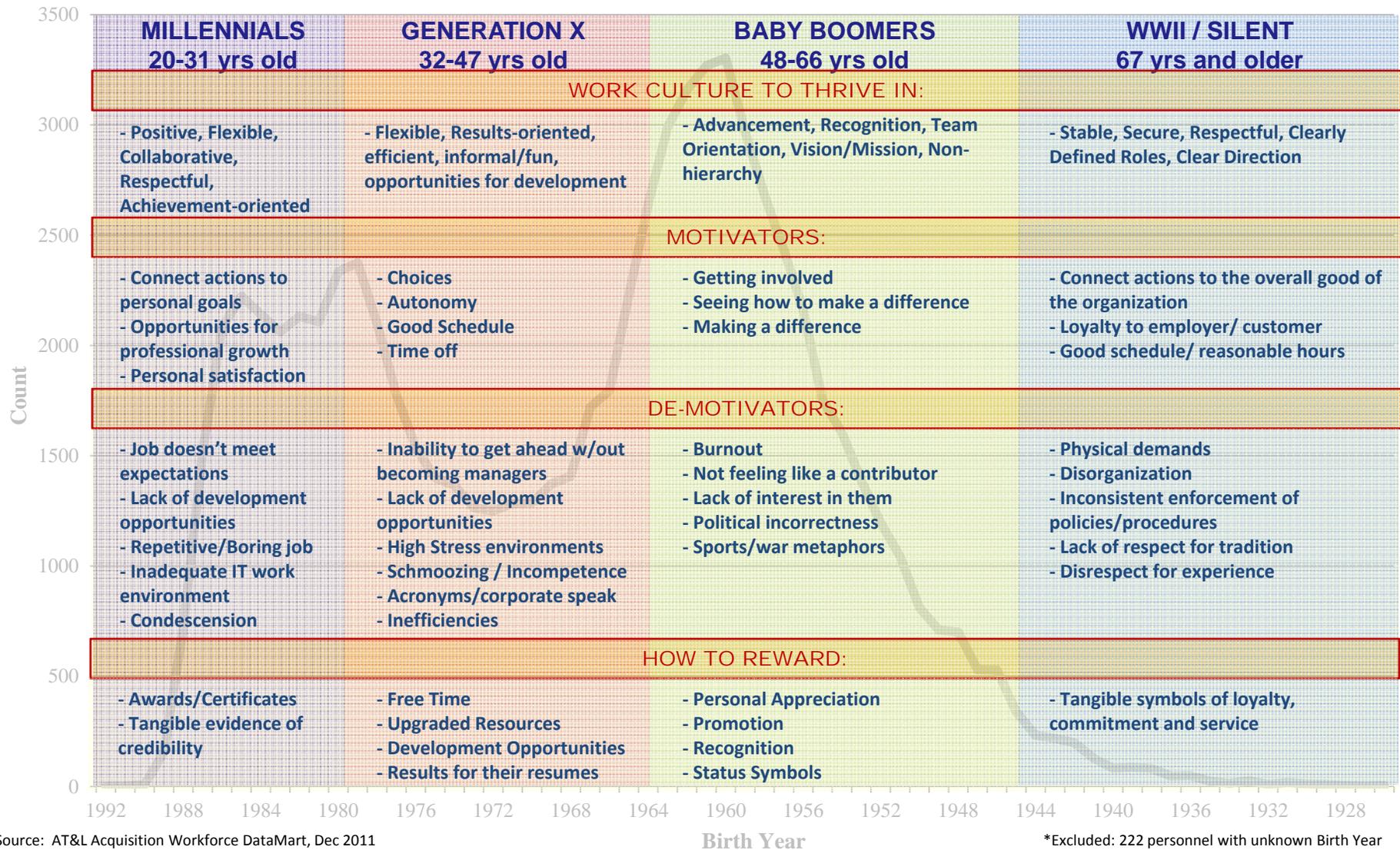
- Awareness of and appreciation for other functional areas
- Understanding of system life cycle and processes
- Knowledge of other engineering disciplines and how they integrate into a system solution
- Knowledge of product domains

- **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

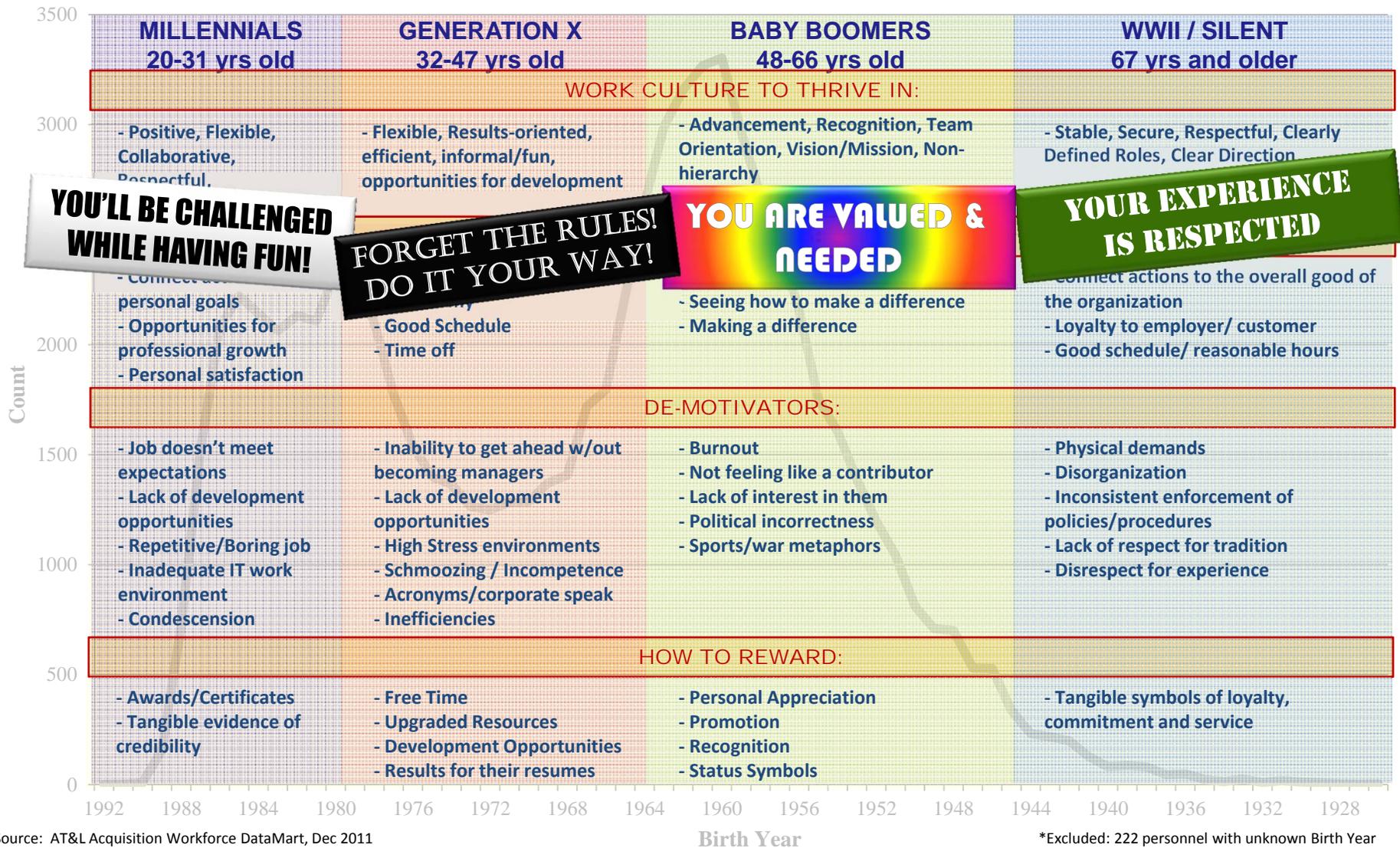


# Four Distinct Generations Across the SPRDE-SE/PSE Acquisition Workforce\*





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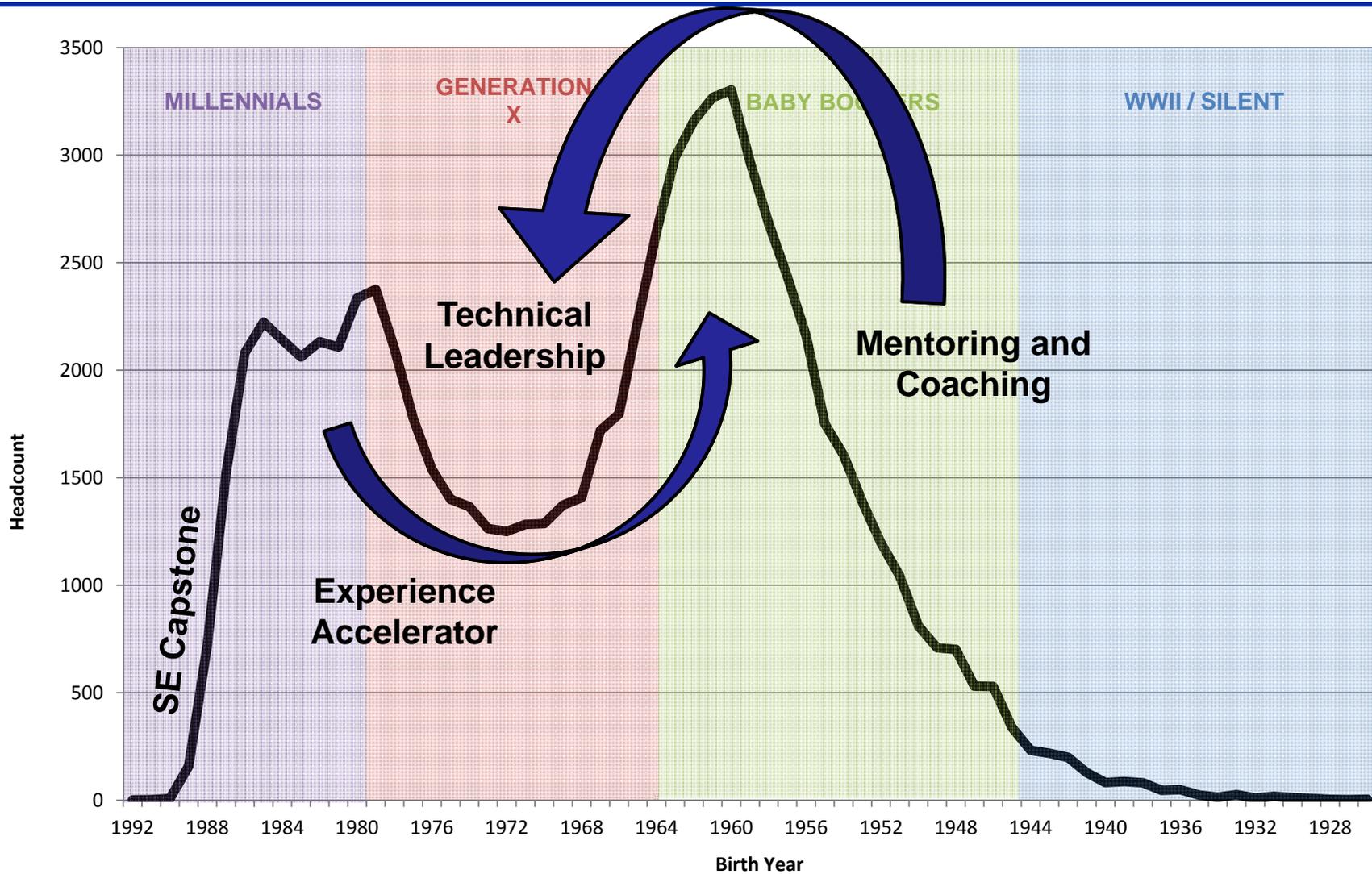


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# Systems Engineering Challenges

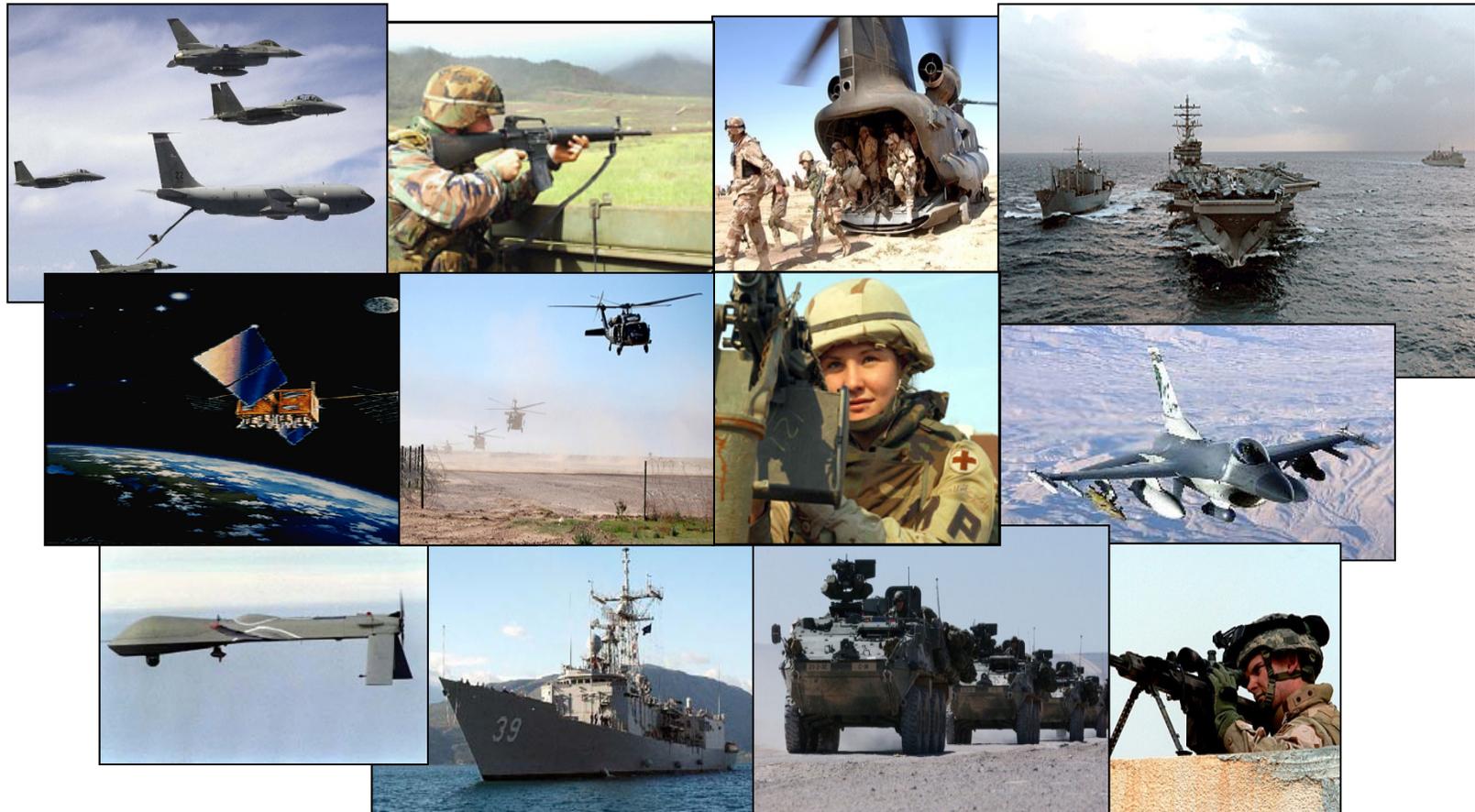


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# Systems Engineering: Critical to Program Success



*Innovation, Speed, and Agility*

<http://www.acq.osd.mil/se>