Supply Chain / Industrial Base and Agility: Challenges

• Needs are driven by competing principles:
  – Increased complexity, diversity of modern enterprises
  – Reduced response time essential for agility

• Technologies are platform – and service – agnostic
  – Difficult to tie enterprise-wide investment impacts to specific programs
  – Many RISB features are dependent on existence of broad network
  – Monolithic software solutions (ERP, e.g.) vs. open standards

• LARGE inefficiency costs = \( f(\text{supply chain complexity, information needs, outdated business processes}) \)
  – Need a solid benefits picture, better metrics
  – Focused research will transition to practice quickly

• Essential to expand Defense Industrial Base (or, to enhance DoD reach into larger industrial base)
Responsive, Integrated Supply Base

Subthrust: Dynamic Status
Information and communications technologies providing real-time visibility across supply chain

Key Elements:
- Representation Methods
- IB Network Established
- e-Marketplace for Agile Response

Future Goal:
Instant, accurate insight to support asset visibility and decisions on sourcing, schedule changes, etc.

Subthrust: Enterprise Integration
Connectivity of information, processes across company boundaries

Key Elements:
- Interoperability
- Collaboration for Product Development
- Cloud-based services for Small Mfrs

Future Goal:
Standard architecture enables “easy,” secure exchange of business and technical information

Subthrust: Business Analytics
Advanced analysis tools for a variety of supply chain functions

Key Elements:
- Supply Chain Design
- Business Intelligence
- “Live” risk modeling

Future Goal:
Business “intelligence” — supporting risk management, trusted sourcing, etc.
Strategic Thrust: RISB

- **Responsiveness** = agility
  - New business models needed to open potential
  - Culture change needed to measure the “right” things

- **Integration** = efficiency
  - Potential $2-3B cost avoidance

*“What’s measured improves”*
— Peter F. Drucker