



# **21<sup>st</sup> Century Defense Industrial Base**

**Acquisition Symposium**

**Monterey, California**

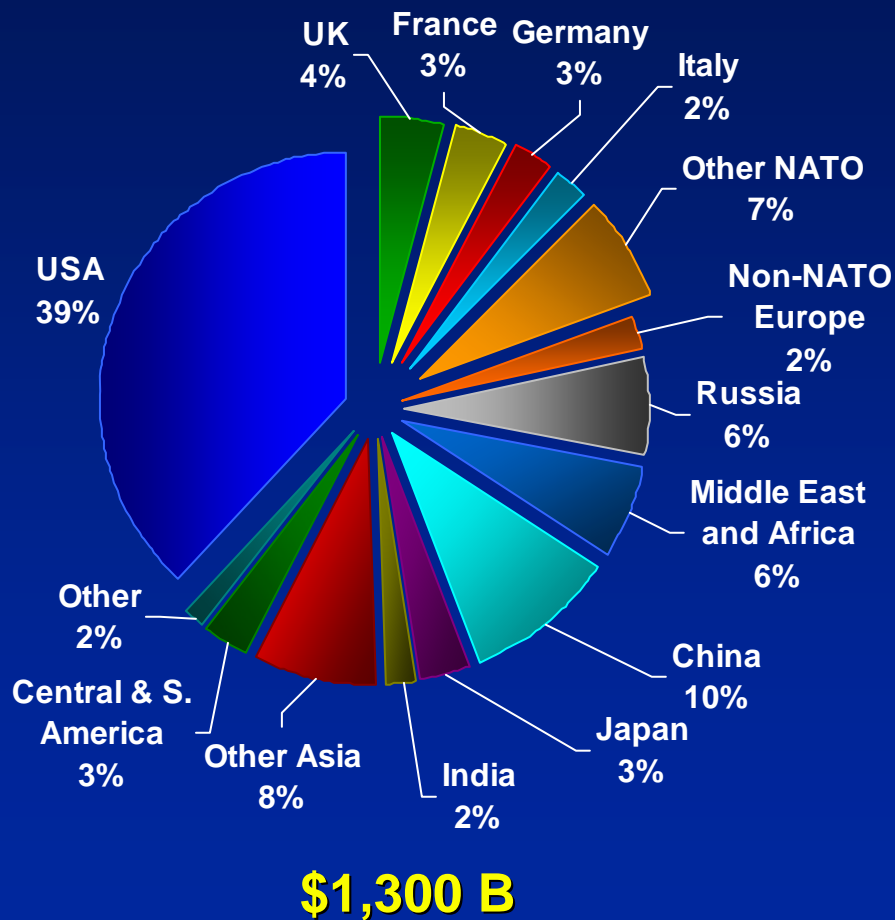
**May 16, 2007**

**LOCKHEED MARTIN**



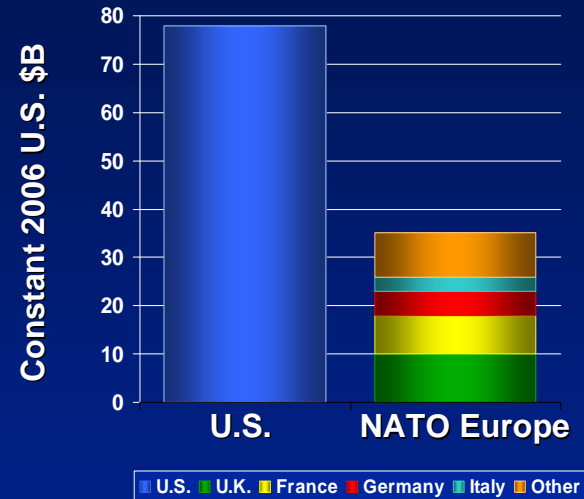
**Robert H. Trice  
Senior Vice President  
Business Development**

# Estimated Global Defense Expenditures 2006

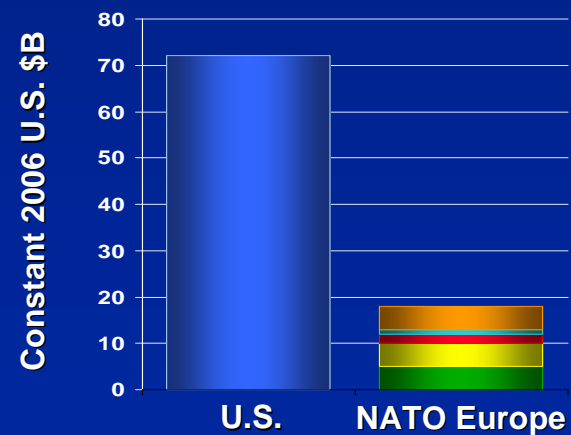


Sources: IISS *The Military Balance* and Other Estimates

## Procurement



## R&D



# Force Structure Reductions

	1990	2006	Change
• <b>Army Divisions</b>	<b>18</b>	<b>10</b>	<b>- 45%</b>
• <b>Aircraft Carriers</b>	<b>15</b>	<b>11</b>	<b>- 27%</b>
• <b>Attack Submarines</b>	<b>97</b>	<b>52</b>	<b>- 46%</b>
• <b>Surface Ships</b>	<b>546</b>	<b>285</b>	<b>- 48%</b>
• <b>Naval Aviation Wings</b>	<b>13</b>	<b>10</b>	<b>- 23%</b>
• <b>Air Force Wings</b>	<b>24</b>	<b>12</b>	<b>- 50%</b>
• <b>Marine Corps Divisions</b>	<b>3</b>	<b>3</b>	<b>- -</b>

Source: Center for Strategic and Budgetary Assessments

# US Combat Equipment – Average Ages

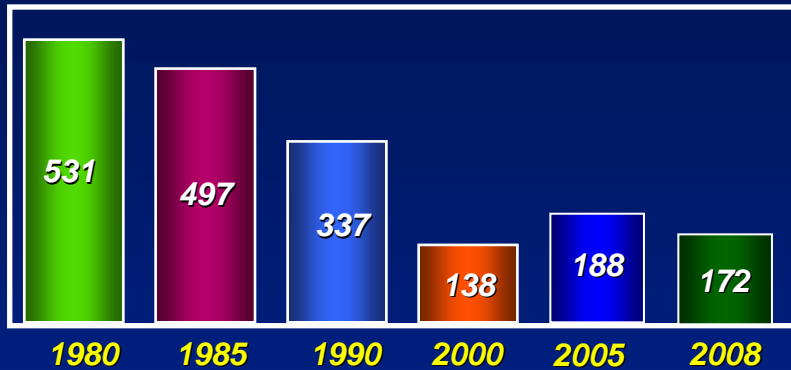
- **B-52 Bombers/C-135 Tankers** 44 years
- **C-130 Transports/H-53 Helicopters** 34 years
- **F-15 and F-16 Fighters** 17 years
- **U-2 Reconnaissance Aircraft** 22 years
- **Naval Amphibious Ships** 20 years
- **Coast Guard Cutters** 35 years
- **M1 Abrams Tanks** 20 years
- **HUMVEE Fleet** 16 years
- **Army Medium Trucks** 21 years

Sources: Air Force Association, AUSA, Navy League

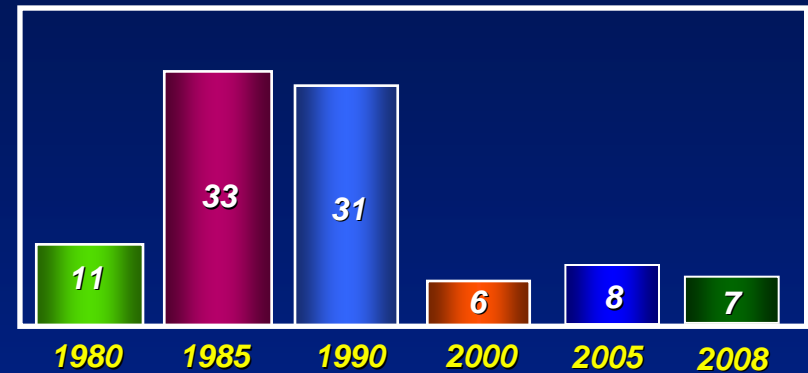
# Defense Systems Procured



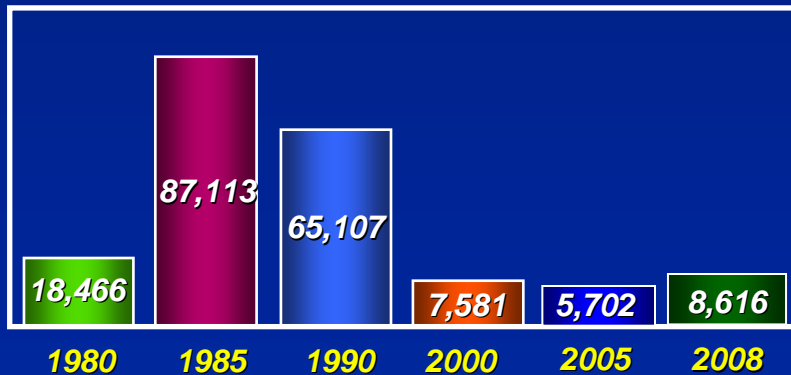
### Aircraft Procurement



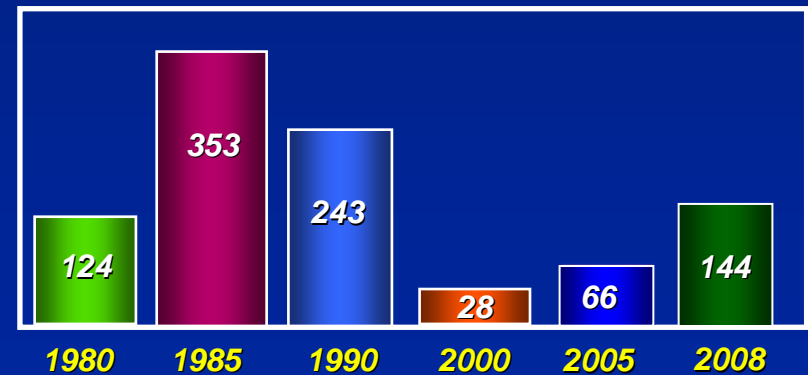
### Ship Procurement



### Missile Procurement

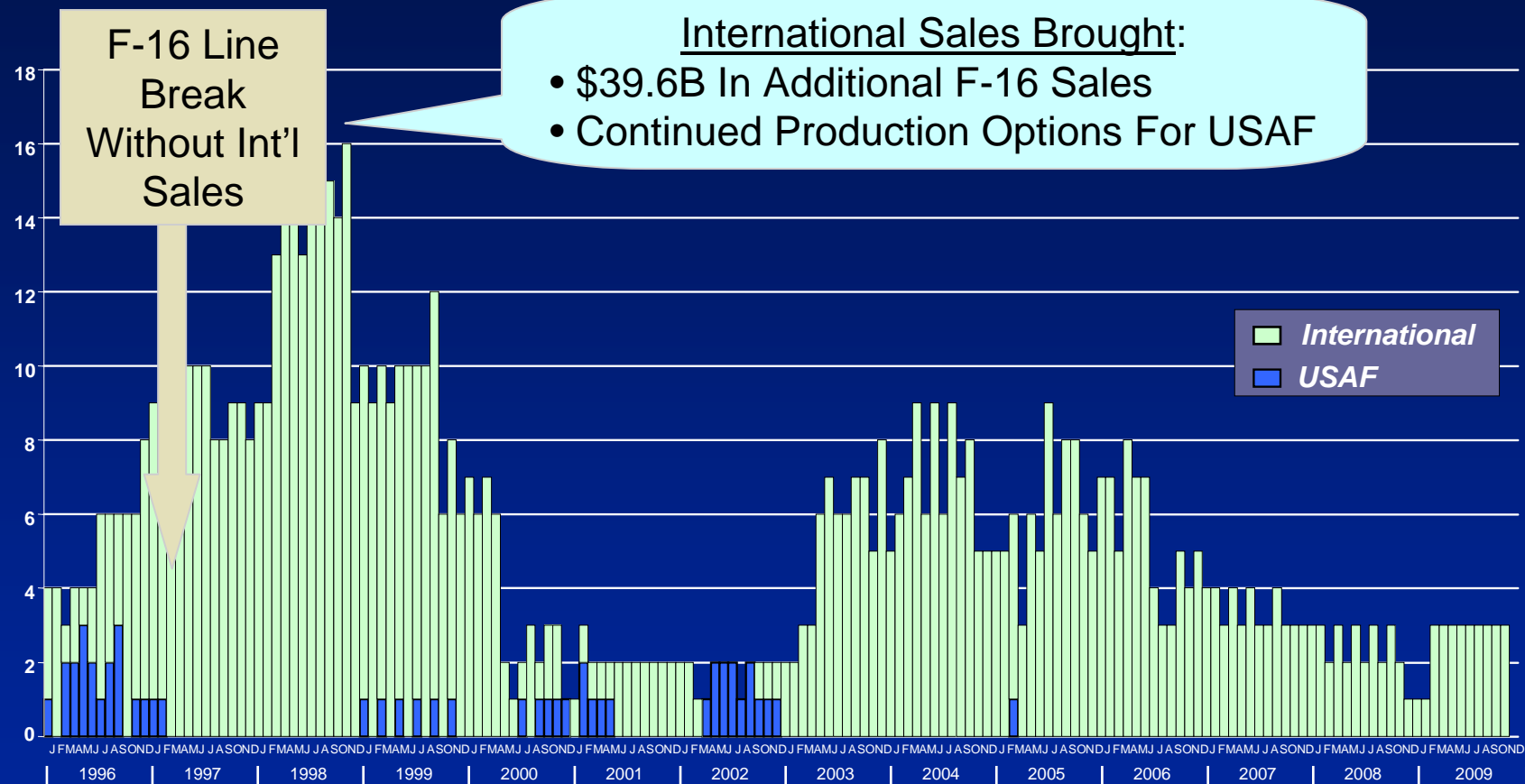


### Helicopter Procurement



Source: DoD Procurement Programs P-1

# International Sales Can Be Vital

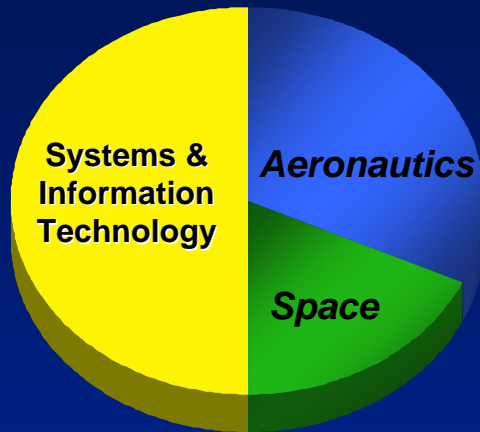


**682 deliveries to 12 Countries; 32 to U.S.**

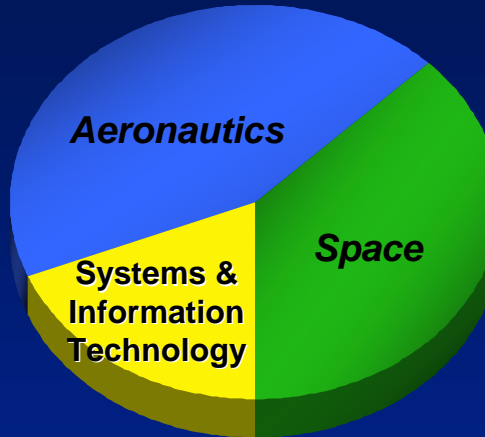
# U.S. Defense Industry is Diversifying



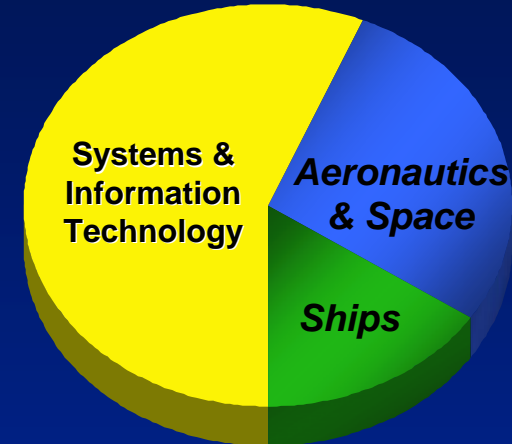
**Lockheed Martin**



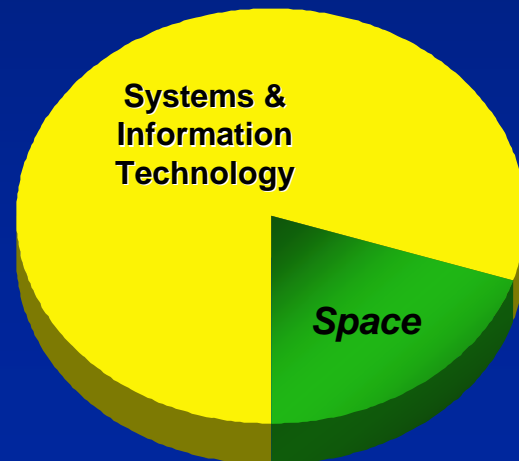
**Boeing (Defense)**



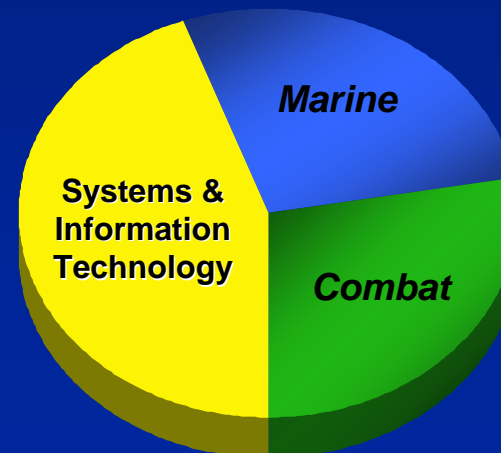
**Northrop Grumman**



**Raytheon**



**General Dynamics**



Note: Commercial Aerospace not included

Sources: Company Reports

# Relative Dependence on Home Market



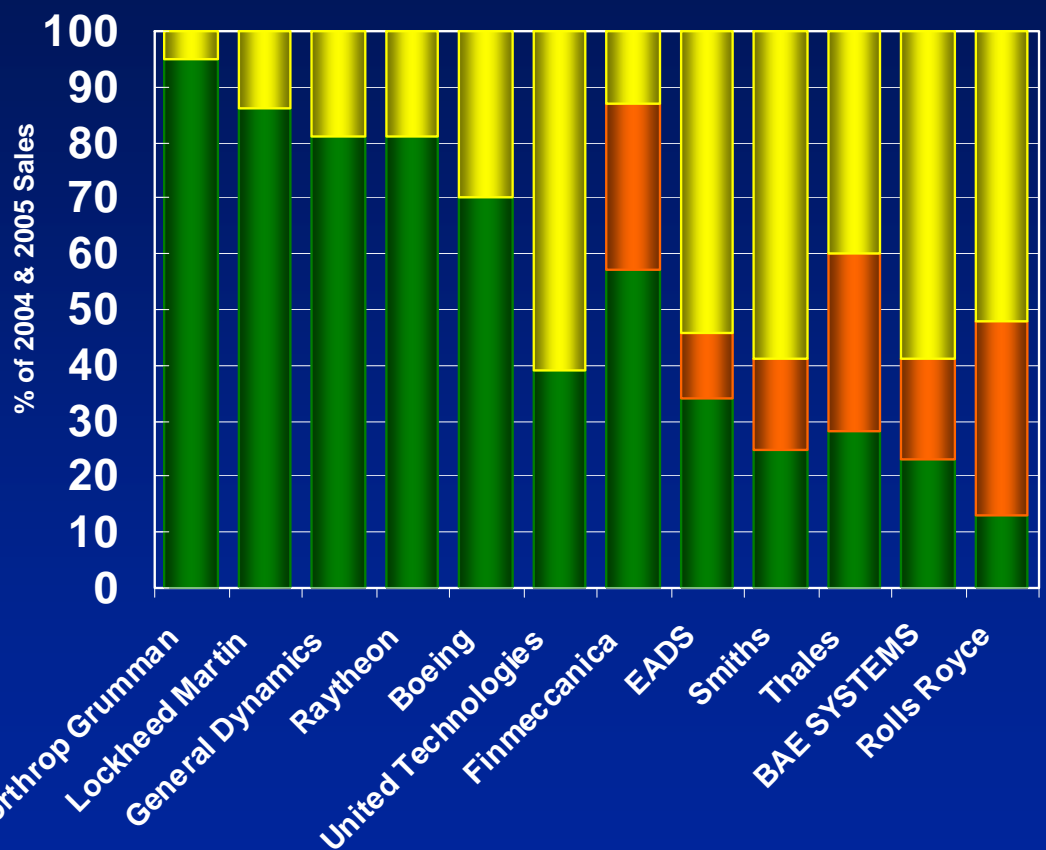
**THALES**

24,726 (45%)  
Employees  
Outside of  
France

**BAE SYSTEMS**

Approx. 38,000  
(40%) Employees  
in North America

■ Home Market ■ Other Europe ■ Export



**EADS**

16,488 (14.9%)  
Employees  
Outside of Home  
Countries

**smiths**

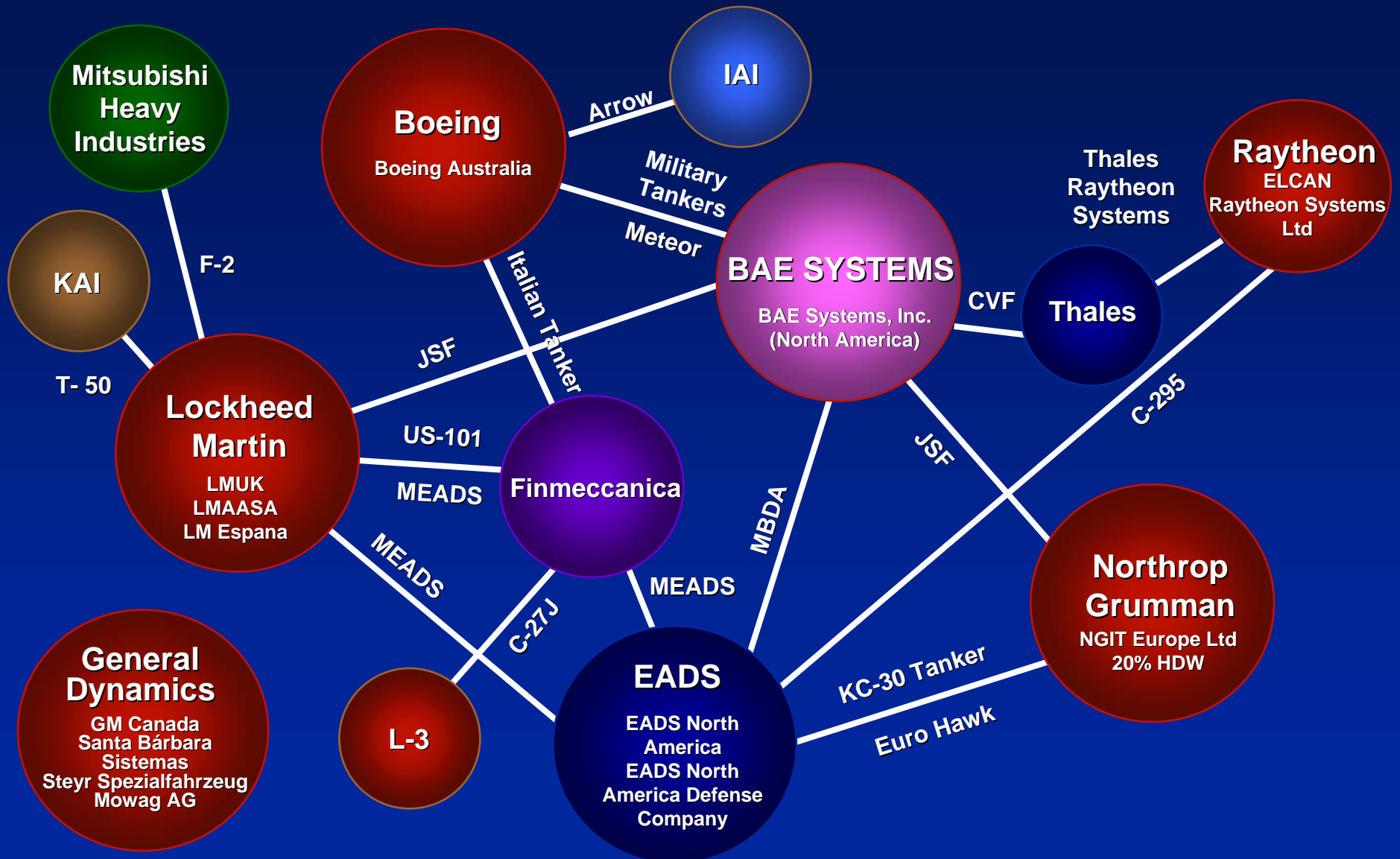
22,200 (74%)  
Employees  
Outside of the  
the U.K.

**For Europeans, ~ 75% of A&D Sales are Exports**

Source: Company Annual Reports



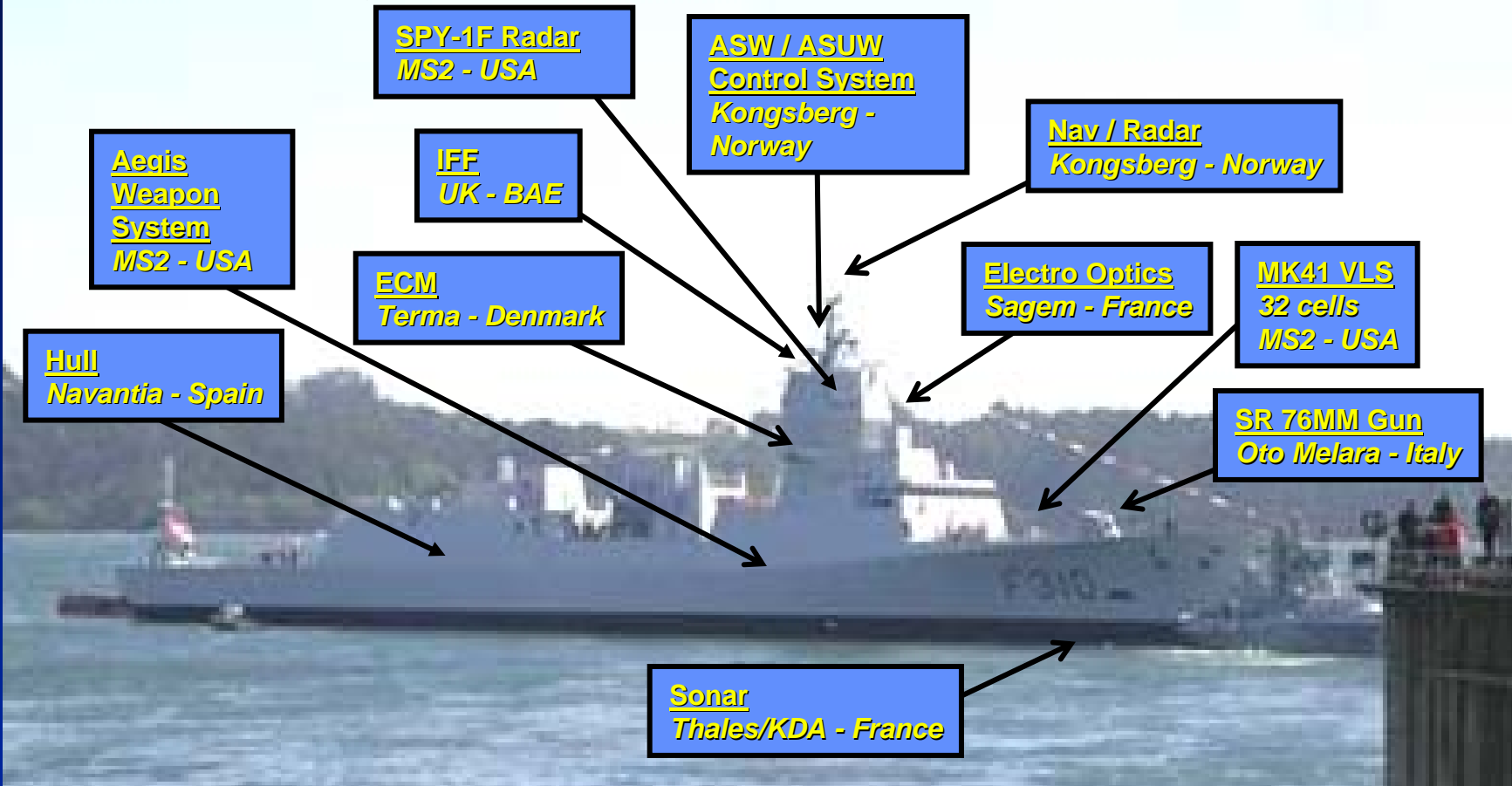
# Defense Cross Border Relationships



# F310 Norwegian Frigate



## Fridtjof Nansen Launch – Ferrol, Spain - 2006



**Robust Global Defense Supply Chain Exists**  
Genuine Collaboration on Defense Opportunities Expanding



# New Business Models Are Required

## Previous Model

- Domestic Markets
- Defense Products
- Government Funded Development
- Exports and Co-Production

## Recent Models

\* VH-71 \* PFI/PPP \* RD 180 \*

\* GMLRS \* F-16 BIK60 \*

- Defense & Civil Govt.
- Customer-Funded R&D
- International Launch Customers
- Global Supply Chain

\* F-2 \* C-130J \* T-50 \* MFTS/BWC \*

## Future Models



**Global Products for Global Markets**

# What the A&D Industry Needs to Do

- **Generate Innovative, Affordable Solutions**
- **Reduce Costs with Targeted R&D Investments and Streamlined Production Processes**
- **Meet Government Customer Expectations on Cost, Schedule and Performance**
- **Retain Competitive Suppliers**
- **Leverage State-of-the-Art Commercial Technologies and the Global Marketplace**
- **Recruit and Retain a Skilled and Diverse S&T Workforce**

# What Government Can Do

- **Engage Industry to Promote a Common Understanding of Defense and Civil Gov't Strategies and Acquisition Objectives**
- **Maintain Stable Program Requirements and Funding**
- **Adopt Multiyear Procurements for Mature Programs**
- **Promote a Rational Technology Transfer / Export Control Regime**
- **Support Efforts to Increase the Pool of Young, Diverse Scientists and Engineers**

