

# Coalition for Applied Research

Introductory Brief

01 March 2016





# Coalition for Applied Research (CAR)

## Goals:

- **(1) To expedite the transition of new scientific discovery and invention to mission deployment and other commercial applications;**
- **(2) To enhance the applied research competitiveness of its members in support of the United States Government;**
- **(3) To Establish Non Traditional Centers of Excellence in emerging advanced technology disciplines at member institutions.**



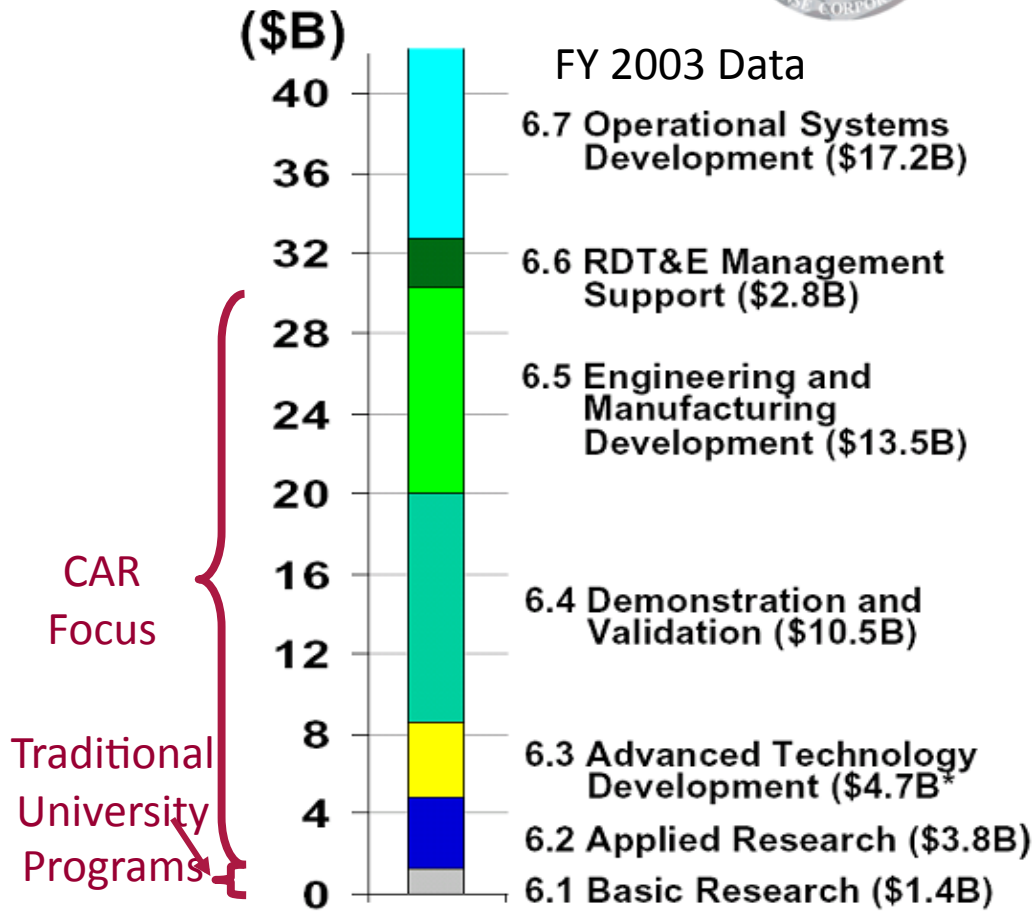
# Coalition for Applied Research (CAR)

## Brief History:

- **2008: Open Innovation Concepts proposed to NAVSEA for Rapid Technology Transition from Laboratory to Fleet End User;**
- **2010: Innovation Challenge Contest Announced to test Open Innovation Concepts against Corrosion Control at Pearl Harbor Naval Ship Yard;**
- **2012: Innovation Challenge Face-Off at Pearl Harbor Naval Ship Yard – Successful Demonstration of Open Innovation in Action;**
- **Now: CAR Collaborations with Emerging Research Institutions;**



## Typical DOD RDT&E Investment Profile

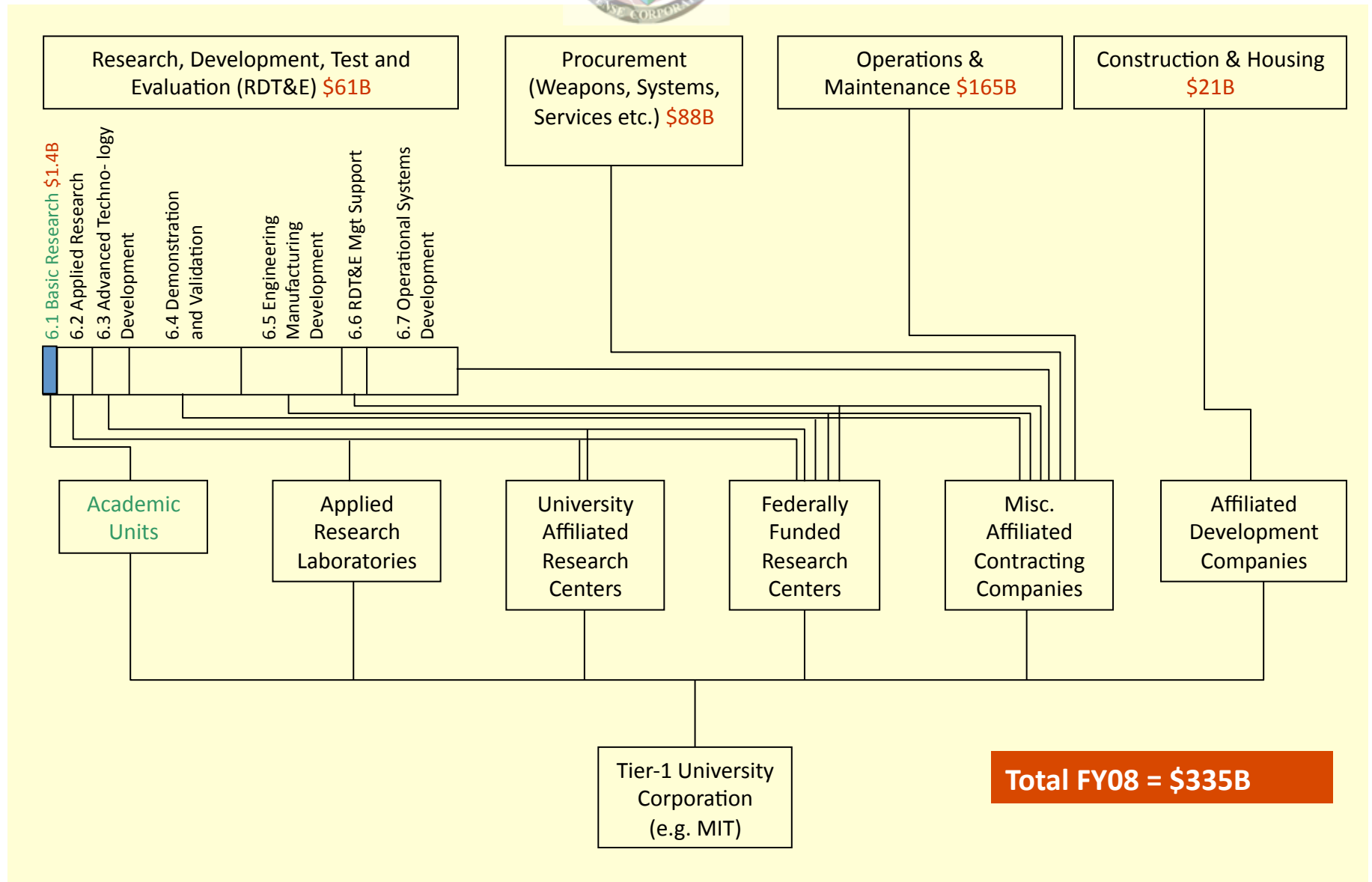


- At the present time, mainly 6.1 RDT&E programs are coupled directly with Academia
- This coupling alone does not do enough to prepare engineers and scientists with adequate exposure to the entire RDT&E expertise range
- Military systems developed only at the 6.1 level remain undeployed due to lack of 6.2-6.5 RDT&E expertise in the workforce
- Academic institutions impacted by 6.2-6.5 RDT&E investments produce top grade SE&T graduates

Institutions Impacted by 6.2-6.5 Investments Produce Top Grade SE&T Graduates



# Department of Defense Funding Channels





# Legacy Of Targeted Academia Capacity Investment

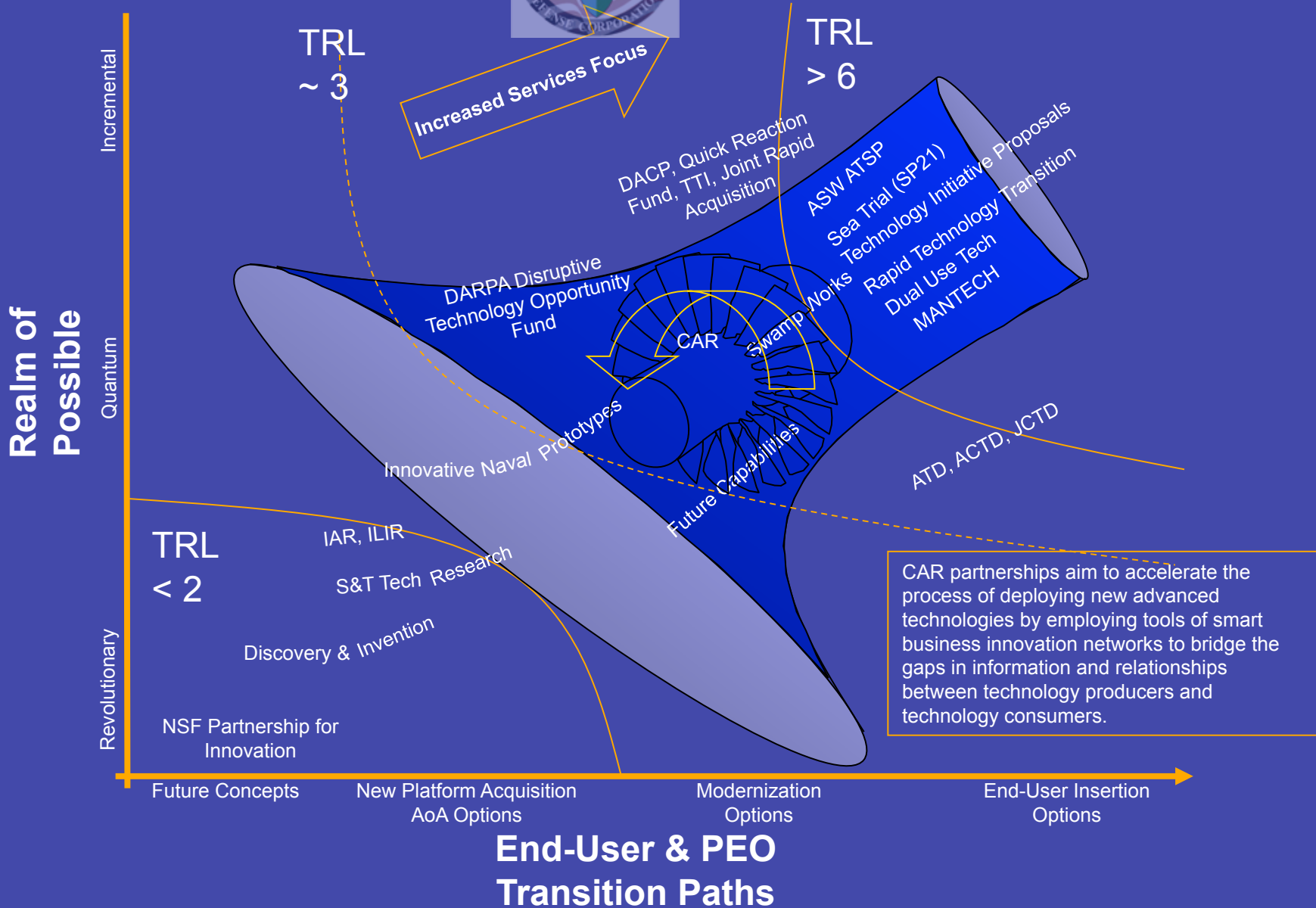
**A sample of Federally Funded Research and Development Centers administrated by Universities & Colleges**

	Yr Est.	Budget	Institution
Ames Laboratory	1947	\$29M (FY2003)	Iowa State University
Argonne National Laboratory	1946	\$475M (Est. Annual)	University of Chicago
Brookhaven National Laboratory	1947	\$467M (FY2005)	Stony Brook University
Lawrence Berkeley National Laboratory	1931	\$500M (FY2004)	University of California
Fermi National Accelerator Laboratory	1967	\$316M (FY2005)	University Research Associates Consortium
Jet Propulsion Laboratory	1944	\$1.0B (Est. Annual)	California Institute of Technology
Lawrence Livermore National Laboratory	1952	\$1.6B (FY2003)	University of California
Lincoln Laboratory	1951	\$328M (FY1994)	Massachusetts Institute of Technology
Los Alamos National Laboratory	1943	\$1.2B (Est. Annual)	University of California
National Astronomy and Ionosphere Center	1960	\$10.8M (FY2006)	Cornel University
Princeton Plasma Physics Laboratory	1951	\$70M (FY2003)	Princeton University
Software Engineering Institute	1984	\$33M (FY 1994)	Carnegie Mellon University
Stanford Linear Accelerator Center	1962	\$280M (FY 2005)	Stanford University

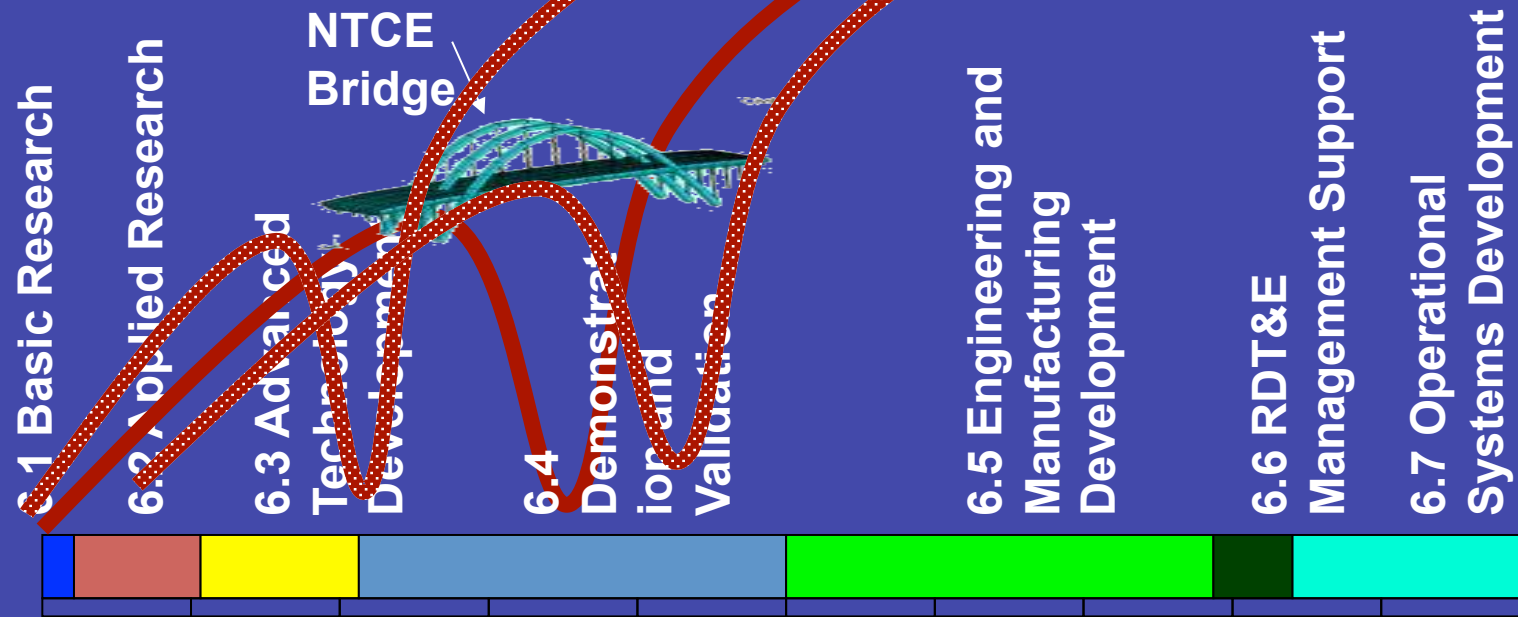
**NOTES:**

1. This list does not include many FFRDCs managed by consortia of Universities, Non Profit Corporations and Industry
2. The list does not include University Affiliated Research Centers (UARC)
3. **There are no FFRDC or UARC managed by HBCU to date.**

# DOD Innovation Enterprise



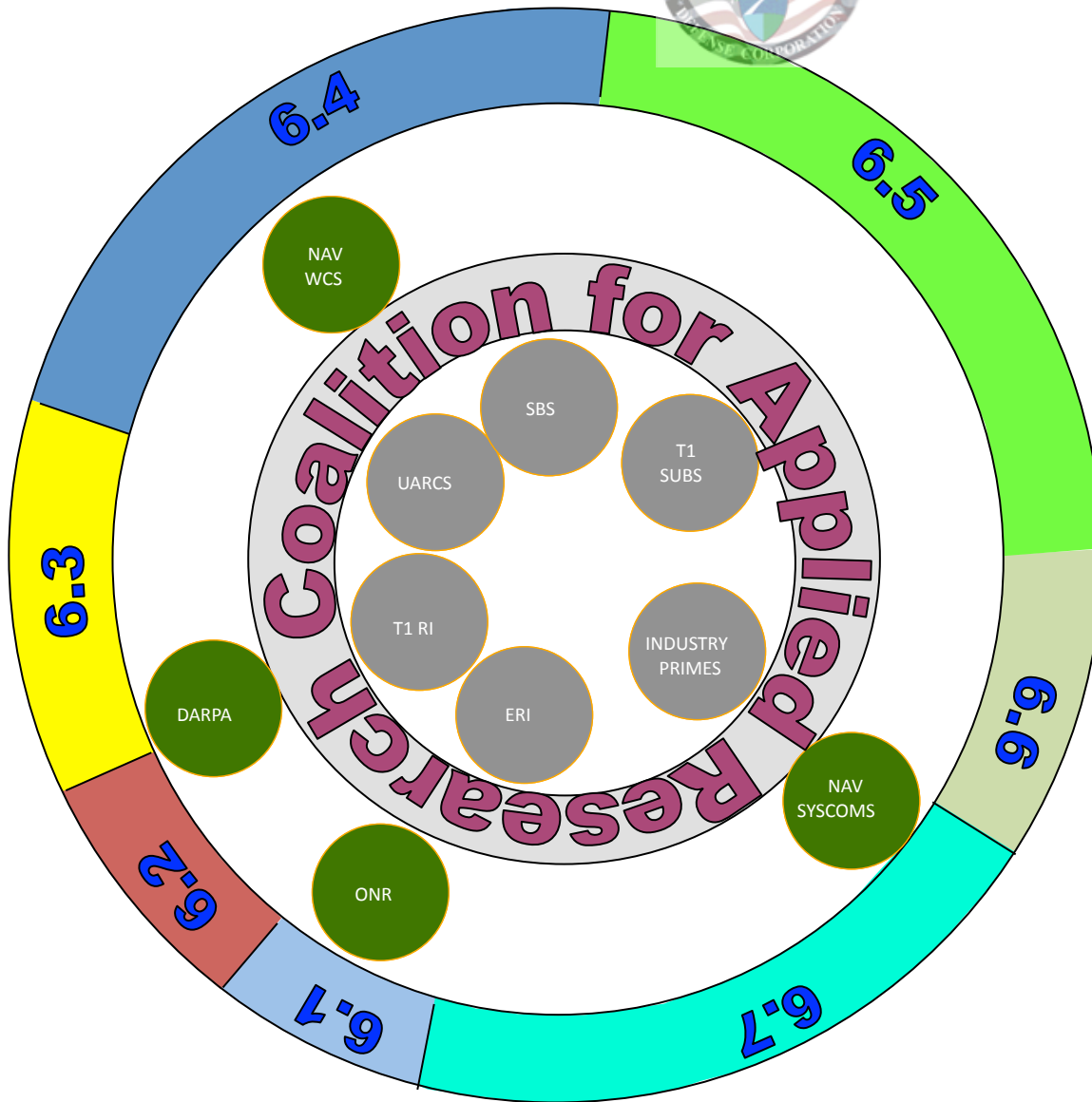
# Innovation Valleys of Death



**Non Traditional Centers of Excellence (NTCE) Program will Expedite the transition of Emerging Innovative Technologies from the Laboratory to the Fleet using Open Innovation Frameworks**



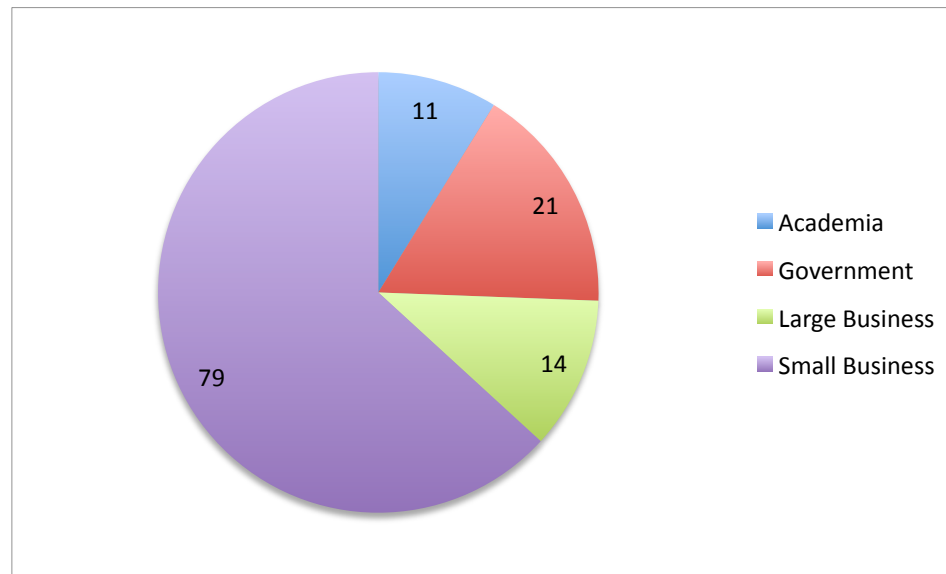
# Bridging The Innovation Valleys of Death



- Connect innovators, end-users and every stakeholder in between to mitigate against the “innovation valleys of death” (IVOD) phenomenon
- Broaden participation of wider spectrum of technology producers in each RDT&E funding category
- Expedite transition of new emerging innovations to the end user



# CAR Network - [bit.ly/CARnet](http://bit.ly/CARnet) – Membership Statistics





## Summary

- CAR collaboration with Emerging Research Institutions (ERI) could leverage CAR member companies' Applied Research capabilities for increasing DOD funding to participating Institutions;
- Showcase CAR member company: Epitaxial Technologies Inc., which was one of the winners of the Innovation Challenge Contest that was coordinated by CAR for NAVSEA at Pearl Harbor Naval Shipyard in 2012;
- ERI community is a niche source of quality intellectual and innovation potential that is not being adequately tapped;
- With your support, we hope to Develop effective strategies to tap into these capabilities.



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