The Role of the Communities of Interest (COIs)
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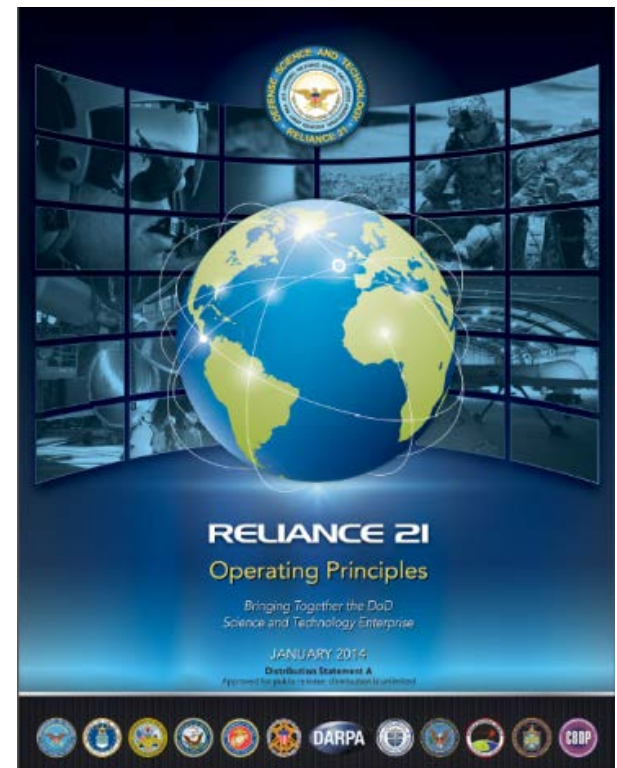*PD, DASD(Research)*

Reliance 21

Reliance 21 is the overarching framework of the DOD's S&T joint planning and coordination process

JOINT PLANNING (S&T Oversight)

- **Mitigate existing or emerging threats**

- **Generate affordability in the systems the Department acquires and operates**

- **Develop technology based surprise for our adversaries**

JOINT COORDINATION (S&T Delivery)

- **17 Communities of Interest (COIs)**

- **COI S&T Roadmap Reviews**

- **COI Information Exchange Meetings**

- **COI Steering Groups**

  - **All Services and DoD Agencies Represented**

RELIANCE 21
Operating Principles
Bringing Together the DoD Science and Technology Enterprise
JANUARY 2014
Distribution Statement A
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Reliance 21 Overview

Reliance 21 is led by the S&T Executive Committee (S&T ExCom)

- **Comprised of the major Department Components**

- **Provides executive oversight and overarching guidance on S&T investments**

- **Ensures a collective understanding of the priorities, requirements, and opportunities of the DoD organizations that manage critical S&T resources**

Reliance 21 is implemented through the Communities of Interest (COIs)

- **Established in 2009 as a mechanism for multi-agency coordination and collaboration**

- **Comprised of S&E SMEs in specific technology areas where there is substantial investment across multiple components**

- **Produces S&T Roadmaps and Reports in their area detailing program goals and objectives, capability gaps, and leveraging opportunities**

Communities of Interest (COIs)

17 cross-cutting, S&T areas staffed with Senior Leaders and Subject Matter Experts from the Services and Defense Agencies

Mission focus
Capabilities enabled by advanced technologies and systems

Counter-IED	Counter-WMD	Biomedical (ASBREM)

Systems/ Capability focus
Multiple technologies are integrated into complex systems to achieve mission impact

Command, Control, Comms, Computers, and Intelligence (C4I)	Human Systems	Cyber	
Autonomy	Engineered Resilient Systems	Electronic Warfare	Sensors
Air Platforms	Ground & Sea Platforms	Weapons Technologies	Space

Technology focus
Technology goals with multiple applications

Advanced Electronics	Energy & Power Technology	Materials & Manufacturing Processes

The Role of the COIs

- **Enable the defense of the Department's S&T investments**

- **Create multi-Service / Agency collaborative efforts to reduce duplication**

- **Develop joint S&T roadmaps**

- **Provide technology options and advice to DoD S&T senior leadership**

- **Monitor key technology developments and engagement opportunities**

- **Provide recommendations to Service S&T Executives regarding opportunities to leverage other Services' investments**

Defend the Department's S&T Investments

- **Describes the Department's S&T investment in detail**

- **Identifies opportunities and efficiencies that will allow the Department to achieve maximum return on investment**

- **Provides the data that ensures the Department that the Warfighters are receiving the greatest benefit from S&T resources and efforts**

Create Collaborative Opportunities to Reduce Unknown Duplication

- **Examine, comprehend, and quantify Service operational needs and explore multi-Service/ Agency collaborative opportunities**

- **Organize working groups across different organizations to investigate and understand inner connections and/or overlaps within the technology areas**

- **Create clear multi-Service/ Agency program dependencies - identified by 'Lead, Shape, or Follow' roles**
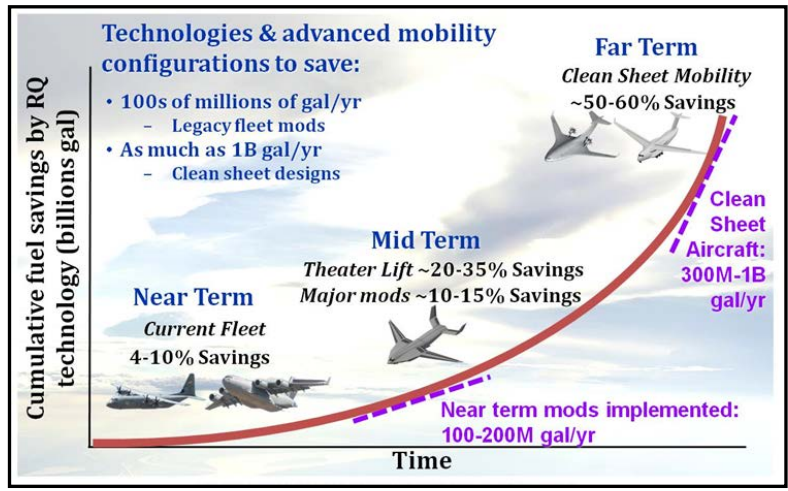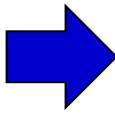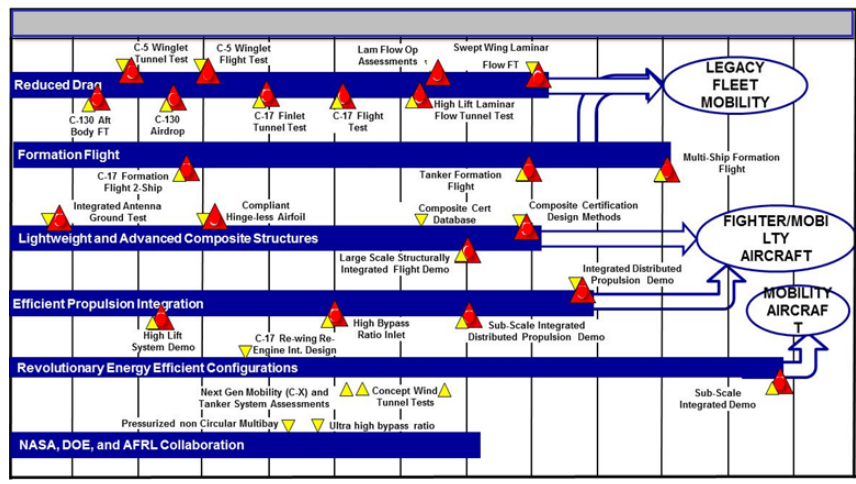
Develop Joint S&T Roadmaps

Roadmaps project a shared vision of DoD's S&T Portfolio

- **Describe program objectives and key technical challenges**

- **Assess and address capability gaps and operational impact**

- **Indicate the requirements timeline and threat development**

- **Propose potential Prototypes/Experiments to address the most challenging technology development needs**

Maintain Vital Engagements to Maximize Capability Development

COI engagements are vital to addressing wide-ranging S&T needs

- **Combatant Command (CCMD) S&T Advisors (Operator Community)**
  - **Provide a forum to articulate S&T priorities and investments with the potential to address CCMD capability gaps**

- **Intelligence Community**
  - **Evaluate intelligence information regarding current and future threats as well as emerging technologies to best align research and acquisition priorities**

- **Basic Research Community**
  - **Review Basic Research priorities and identify opportunities to engage future scientists and engineers**

- **Industry Independent Research and Development**
  - **Industry can use COI Roadmaps to identify technical challenges**

External inputs influence DoD Technology Strategy and goals

CCMD S&T Advisor Engagement

- **Gain an understanding of the Operational Environment, strategic objectives, current and projected threats**

- **Raise the CCMD S&T Advisor's awareness of the technologies that are currently addressing their needs**

Intelligence Community Engagement

- **Maintain awareness of the fast-moving global environment, the wide array of threats, and the innovative technologies being developed around the world**

- **Focus on the development of US capabilities, while maintaining awareness of our adversary's capabilities to ensure continued US technological advantage**

- **Leverage Intelligence Community activities, global threat reports and insights to inform a strategic S&T investments**

Basic Research Community Engagement

- **Ensure an understanding of DoD's Basic Research investment priority in basic science**

- **Maintain awareness of emerging opportunities for transition to applied research and the COIs**

- **Inform Basic Research of potential areas for investment that could resolve technical challenges in capability development (e.g. materials and hypersonics)**
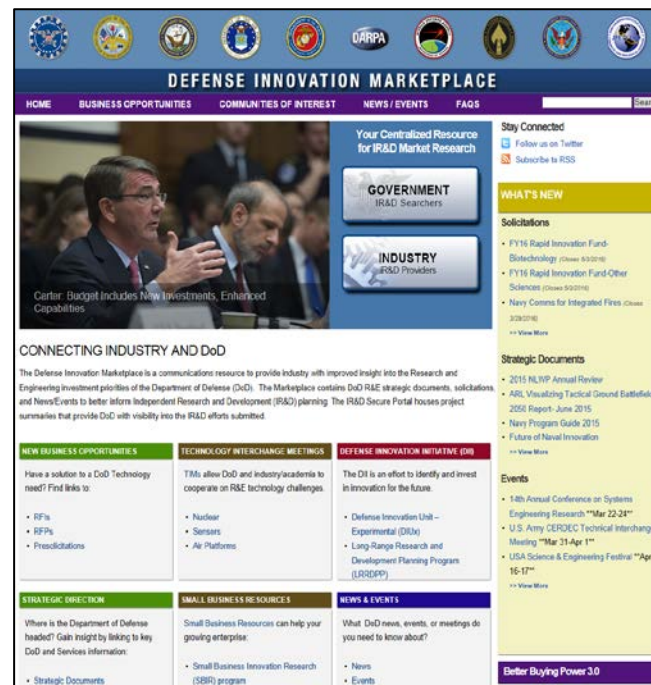
Industry Engagement

> **Defense Innovation Marketplace is a key communication resource between DoD and Industry**

Provides Industry:

- **DoD R&E Strategic Guidance**
- **Service-specific S&T priorities, Virtual Technology Interchanges, events and solicitations are posted.**
- **DoD Investment Strategies and Technology Roadmaps**
- **Secure Portal to share IR&D Project Summaries**

Provides DoD:

- **Research for approved DoD S&T, R&D and Acquisition professionals**
- **>19,000 IR&D Project Summaries on Portal**
- **Technical Maturity and Surveillance**
- **Guide DoD R&E investments**
- **Potential for risk / cost reduction**
- **Opportunity to grow and expand new relationships and partnerships**

Industry Engagement

National Defense Industrial Association (NDIA)

- **"Creating Innovative DoD S&T Partnerships"**

- **COIs present joint S&T Roadmaps to promote communication and collaboration with industry**

- **Unique opportunity for industry to discuss roadmaps with COIs and share new ideas and related work that may help fill capability gaps**

  - One-on-one sessions with members of COI Steering Groups to review on-going IR&D efforts, innovative ideas, and rapid commercial sector work

NDIA

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Summary

- **Established in 2009, COIs have grown from mechanisms of information sharing and multi-agency coordination to an infrastructure that identifies opportunities for collaboration to reduce duplication**

- **COIs enable the S&T ExCom to deliver maximum S&T impact with reduced risk:**
  - **Coordinate S&T strategies**
  - **Share new ideas, technical directions, and technology opportunities**
  - **Jointly plan programs**
  - **Measure technical progress**
  - **Report on the general state of health of technology areas**

- **Joint S&T Roadmaps project a shared vision of the Department's S&T portfolio, showcase joint activities, and enable defense of investments**

- **COIs are in a unique position to engage with industry through NDIA to promote innovation in DoD and maintain awareness of the rapid technology development taking place in the commercial sector**

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