

Defense Sciences Office: Welcome & Orientation

Dr. Stefanie Tompkins, DSO Director

DSO Proposers Day

July 22-23, 2016





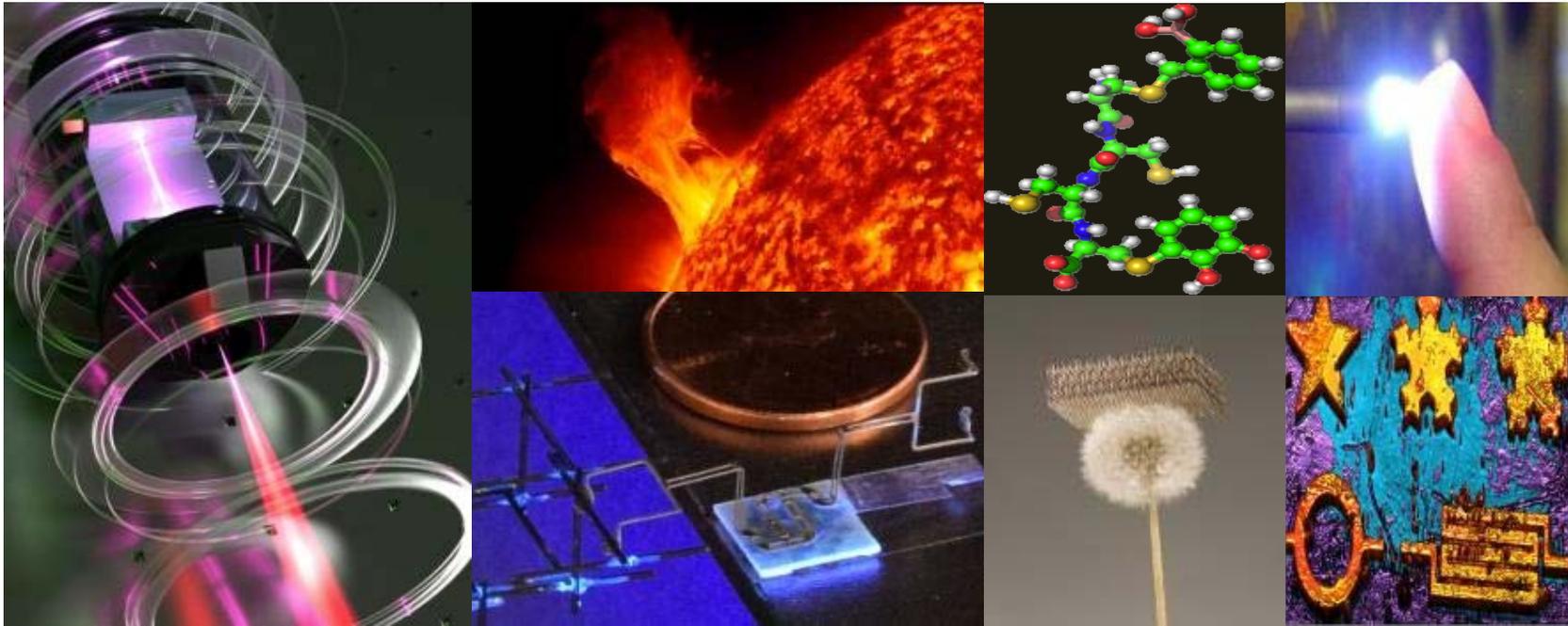
Agenda: June 22-23, 2016



	01-200	01-500	PM Office	DCC Lobby		
7:30-8:30	Registration					
8:30-9:00	Welcome & Orientation (General Session)	Overflow for General Session				
9:00-9:15	BREAK					
9:15-10:15	Breakout 1: Human-Machine Cooperation and Collaboration	Breakout 2: DARPA 101: Engaging with DARPA & DSO	Sidebars	DSO Display / Networking		
10:15-10:30	BREAK					
10:30-11:30	Breakout 3: Opportunities in Quantum Science	Breakout 4: DARPA 102: Universities working with DARPA				
11:30-1:30	LUNCH					
11:45-12:45	Breakout 5: Frontiers of Social Science	Breakout 6: Doing Business with DARPA				
1:30-2:30	Breakout 7: Learning, Modeling and Modulating Complex Dynamic Systems	Breakout 8: How DARPA Develops Programs				
2:30-2:45	BREAK					
2:45-3:45	Breakout 9: Frontiers in Optics	Breakout 10: Defining the Frontier for DARPA's DARPA: Understanding and Accelerating Technological Revolution				
3:45-4:00	BREAK					
4:00-5:00	Breakout 11: What Are We Missing?	Breakout 12: Complexity in Natural Systems				



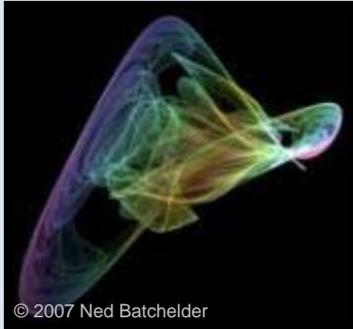
DSO is "DARPA's DARPA"



Accelerating breakthrough discoveries to create new enabling technologies for national security



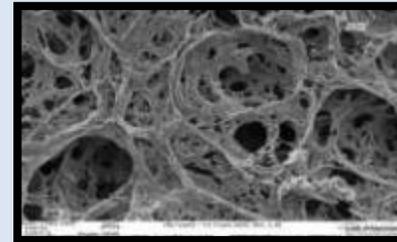
Focus Areas



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Math, Modeling & Design

Physical Systems



Human-Machine Systems



Credit: Detroit Institute of Arts

Social Systems



The Economist, April 2012



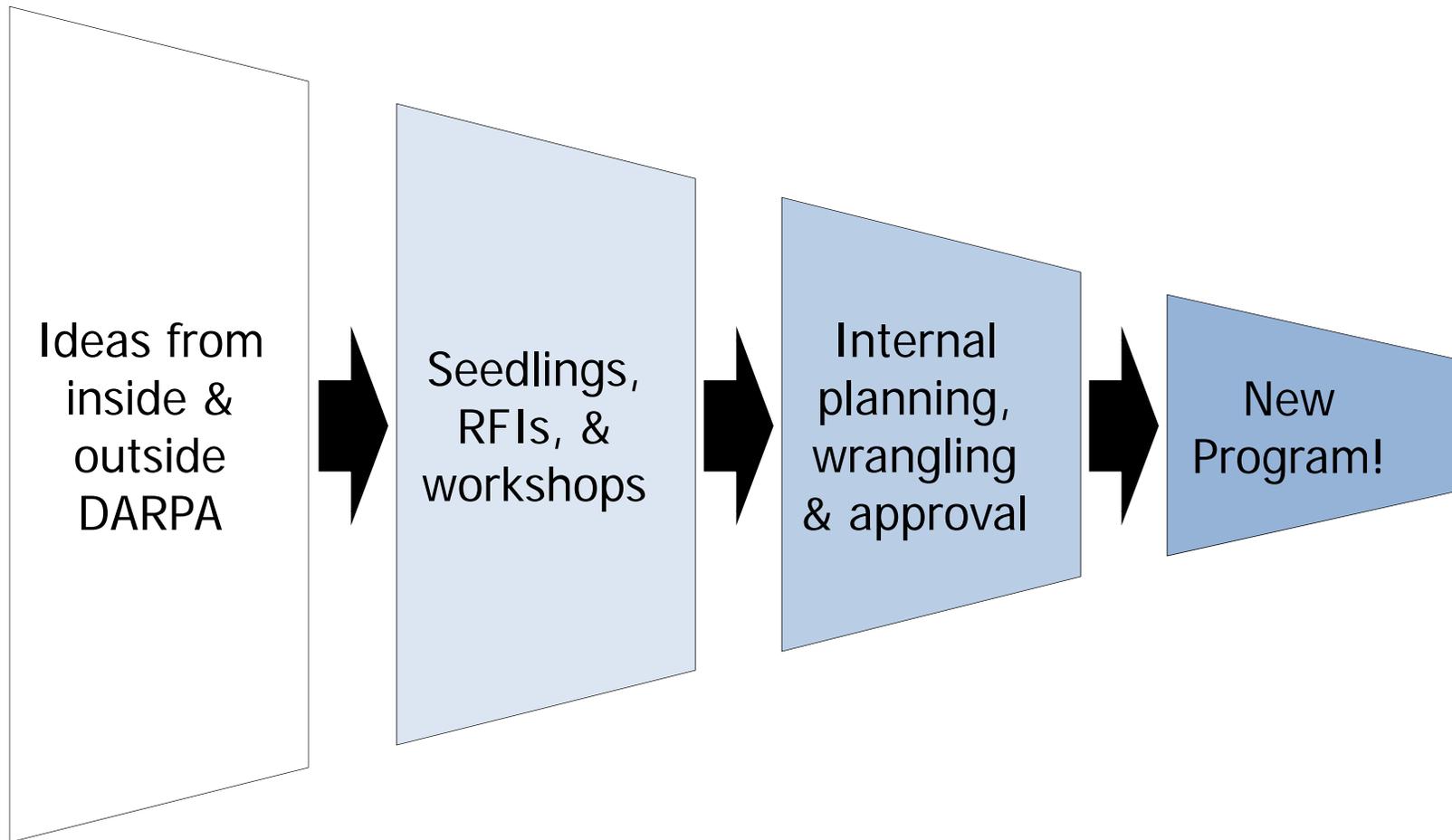
Wide range of national security challenges: evolving nation states, shifting networks

Powerful, globally available technologies set a fast pace

Military systems' cost, pace, and inflexibility limit our operational capabilities



DARPA Program Gestation





Program Managers



Fariba Fahroo
Mathematics



Michael Maher
Materials & Manufacturing



James Gimlett
Physics



Jan Vandenbrande
Math, Design, & Production Automation



John Paschkewitz
Systems, Design, & Materials



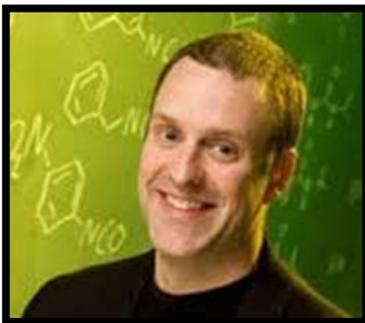
John Main
Material System Innovation



Prem Kumar
Quantum & Nonlinear Optics



Adam Russell
Behavioral/Social Sciences



Tyler McQuade
Chemistry



Predrag Milojkovic
Imaging & Optics



Reza Ghanadan
Complexity Science



Vincent Tang
Applied Physics



Housekeeping



- WiFi
- How to ask Questions
- Breakout Sessions
- Sidebars
- Lunch