



Intelligence Advanced Research Projects Activity (IARPA)

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Overview



IARPA's mission is to invest in **high-risk/high-payoff** research programs that have the potential to provide the U.S. with an overwhelming intelligence advantage over our **future** adversaries

- **This is about taking real risk.**
 - This is NOT about “quick wins”, “low-hanging fruit”, “sure things”, etc.
- **CAVEAT: HIGH-RISK/HIGH-PAYOFF IS NOT A FREE PASS FOR STUPIDITY.**
 - Competent failure is acceptable; incompetence is not.
- **“Best and brightest”.**
 - World-class PMs.
 - IARPA will not start a program without a good idea and an exceptional person to lead its execution.
 - Full and open competition to the greatest possible extent.
- **Cross-community focus.**
 - Address cross-community challenges
 - Leverage agency expertise (both operational and R&D)
 - Work transition strategies and plans



The “P” in IARPA is very important



- Technical and programmatic excellence are required
- Each Program will have a clearly defined and measurable end-goal, typically 3-5 years out.
 - Intermediate milestones to measure progress are also required
 - Every Program has a beginning and an end
 - A new program may be started that builds upon what has been accomplished in a previous program, but that new program must compete against all other new programs
- This approach, coupled with rotational PM positions, ensures that...
 - IARPA does not “institutionalize” programs
 - Fresh ideas and perspectives are always coming in
 - Status quo is always questioned
 - Only the best ideas are pursued, and only the best performers are funded.



The “Heilmeier Questions”



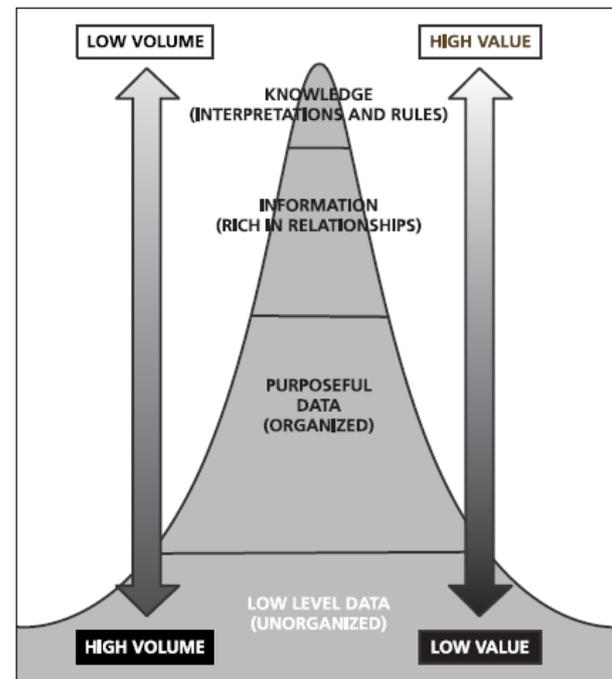
1. What are you trying to do?
2. How does this get done at present? Who does it? What are the limitations of the present approaches?
 - Are you aware of the state-of-the-art and have you thoroughly thought through all the options?
3. What is new about your approach? Why do you think you can be successful at this time?
 - Given that you’ve provided clear answers to 1 & 2, have you created a compelling option?
 - What does first-order analysis of your approach reveal?
4. If you succeed, what difference will it make?
 - Why should we care?
5. How long will it take? How much will it cost? What are your mid-term and final exams?
 - What is your program plan? How will you measure progress? What are your milestones/metrics? What is your transition strategy?



The Three Strategic Thrusts (Offices)



- **Smart Collection:** dramatically improve the value of collected data
 - Innovative modeling and analysis approaches to identify where to look and what to collect.
 - Novel approaches to access.
 - Innovative methods to ensure the veracity of data collected from a variety of sources.
- **Incisive Analysis:** maximizing insight from the information we collect, in a timely fashion
 - Advanced tools and techniques that will enable effective use of large volumes of multiple and disparate sources of information.
 - Innovative approaches (e.g., using virtual worlds, shared workspaces) that dramatically enhance insight and productivity.
 - Methods that incorporate socio-cultural and linguistic factors into the analytic process.
 - Estimation and communication of uncertainty and risk.
- **Safe and Secure Operations:** countering new capabilities of our adversaries that could threaten our ability to operate effectively in a networked world
 - Cybersecurity
 - Focus on future vulnerabilities
 - Approaches to advancing the "science" of cybersecurity, to include the development of fundamental laws and metrics
 - Quantum information science & technology





Concluding Thoughts



- Technical Excellence & Technical Truth
 - Scientific Method
 - Peer/independent review
 - Full and open competition
- We are looking for outstanding PMs.
- How to find out more about IARPA:

www.iarpa.gov