

Department of Defense Improved Soldier Survivability and Mobility Needs Statement

The Department of Defense's Rapid Reaction Technology Office (RRTO) will conduct a Solutions Meeting in the Tampa, Florida area during October 2014. The Solutions Meeting provides selected innovative companies with an opportunity to make short technical presentations to government representatives about their technologies and products. There is a potential that companies may be selected for pilot projects or experimentation if their technology appears to match the needs described below.

The RRTO is supporting the Department of Defense in looking for technologies to protect and improve the Department's warfighting capabilities. The operational goal is to significantly improve both the survivability and mobility of tomorrow's warfighters.

The DoD Improved Soldier Survivability and Mobility effort is looking for innovative technologies and capabilities in the following areas:

Innovative/Advanced Materials

- Ballistic armor and blast protection
- Chemical/biological/radiological protection
- Lightweight, conformal, shapeable
- Metals, ceramics, composites
- Multi-spectral signature management
- Performance enhancing textiles and fabrics, as well as electronic textiles

Actuators

- High performance/high torque and low power/small size

Operator Interface/Human Factors

- Extremely low latency digital optical systems
- Innovative display technologies with enhanced capabilities such as wide field of view, high definition, retinal projection, contact lenses, etc.
- Intuitive controls/interfaces such as voice, gesture/physical, neural interface, etc.
- Remote tele-medicine and real-time physiological monitoring devices

Communications

- Beyond line of sight high capacity comms
- High bandwidth peer-to-peer comms
- Innovative antennas such as tunable antennas, body conformal, etc.
- Custom antenna manufacturing and design

Data Processing & Controls

- Rugged processors and sensors
- Advanced/lightweight cabling
- Non-GPS mapping
- Virtual controls
- Novel software development tools
- Distributed computing

Data Analytics

- Modeling and simulation tools to assess impacts of load carriage and exoskeletons on musculoskeletal health and performance
- Bio-mechanical/kinematic motion capture and measurement
- Data set development, management and analytics
- Data compression
- Custom app development

Power & Energy

- Power generation technologies, such as efficient/small internal combustion engines, hybrid systems, etc.
- Prime and rechargeable high density batteries
- Innovative energy storage solutions such as SOFC and PEM fuel cells, ultra capacitors, solid-state or lithium-air batteries, etc.

Companies interested in participating in the Solutions Meeting should submit an application to RRTO Innovation via e-mail to osd.pentagon.ousd-atl.mbx.rrto-innovation@mail.mil.

The following information is required in the application (Note: Only 1 application permitted per company):

1. Email subject line “Improved Soldier Survivability and Mobility Solutions Meeting Application”
2. Company name
3. Website address
4. POC, email, phone number and an alternate POC if desired
5. A succinct description (less than 100 words in length) of the technology that the company would like to brief if they are selected for participation.
6. Map the technology to the topic areas and needs addressed

All applications must be received on or before 5:00 PM EDT, July 30, 2014.

Companies selected are responsible for their travel and all other expenses associated with participation in the DoD Improved Soldier Survivability and Mobility Solutions Meeting.