

## Lockheed Martin Strategic Technology Threads

### Advanced Active & Passive Sensing

- System and host platform hardware and software with lower sensor costs, increased signal-to-noise ratio, and/or lower sense-to-information latency to turn the sensed environment into information about the target (e.g., target recognition, speed, intent, etc.) via ladar, radar, electro-optic and acoustic methods

### Advanced Software:

- Methods for improved software performance and reliability, including advanced software architectures, integration, agents, languages, processor tailoring, production and verification, validation and testing (e.g., Model-Based-Software Development)

### Autonomous Systems:

- Hardware, software, and architectures to enable uninhabited intelligent deployment of ground, sea, air or space capabilities with improved cost, weight, performance or risk characteristics (e.g., swarms)

### Bioinformatics:

- Computational techniques using biological information which provide advances in multiple fields including medicine

### Biometrics:

- Architectures for detectors and associated hardware and software for personnel identification in a broad range of applications (e.g., authentication, surveillance and tracking)

### Chemical -Biological Defense & Response:

- Detectors and associated hardware and software for detection and characterization of chemical and biological threats, to include methods to facilitate timely response (e.g., explosive vapor and biological agent identification)

### Decision Support Systems:

- Hardware & software for enhancement of decision and action efficiency in complex and/or stressing data/timeline mission environments (e.g., fusion, pattern recognition, data mining and knowledge management)

### Directed Energy:

- High energy/power laser and particle beam, beam control, ancillary component and integration hardware and software for target negation and/or disruption

### Distributed Intelligence, Surveillance, Reconnaissance (ISR) & Attack:

- Component and system hardware and software for ISR and attack systems employing large numbers of integrated collection and response (force application) nodes (e.g., unattended in-situ sensors and local response yet integrated defense systems)

### Energy & Power:

- Hardware and software to improve performance across a broad range of applications (e.g., grid power, portable power, energy storage and pulsed power, for military and civilian users)

### Information Assurance & Operations:

- Methods and implementation software and hardware for protection of networks and electronic data against intrusion or data loss, and associated threat capability assessment

### Nanotechnology:

- Modeling, development, fabrication and characterization of materials/structures at the atomic/molecular scale and understanding of associated applications (e.g., mechanical, sensor, communications, and medical applications)

### Predictive & Responsive Logistics:

- Hardware and software affording improved inventory, tagging, tracking, distribution, security and prognostic health monitoring of large and/or complex product sets (e.g., end-to-end global asset logistic optimization)

### Signatures & Phenomenology:

- Modeling and testing of interactions between radiation or matter and targets, and the corresponding response of sensors, to include methods for response control