



# Information Sheet

## Revolutionary Fibers and Textiles Manufacturing Innovation Institute

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### Mission

Advanced Functional Fabrics of America (AFFOA) is an independent non-profit. Its mission is to enable a domestic manufacturing-based revolution by transforming traditional fibers, yarns, and fabrics into highly sophisticated, integrated and networked devices and systems.

To build a sustainable, high-tech ecosystem that captures this national opportunity, AFFOA will:



Enable domestic manufacturers to license the world's largest cache of fiber device intellectual property by forming a national repository of university based fiber and textile IP.



Organize a Fabric Innovation Network, a collaborative National network of manufacturing nodes, to rapidly execute prototypes and pilot production of 'integrated fabric' products decreasing time-to-market and helping accelerate product innovation.



Create the first-ever fiber and fabric technology capability and manufacturing roadmaps for the integrated fabric industry predicated on a fiber "Moore's Law" that delivers quantum leaps in fiber function every 12 months.



Fund 'infrastructure' projects to realize the technology and manufacturing roadmaps and establish an accessible fiber and textile knowledge and data repository.



Address challenges that prevent the volume manufacturing of innovative fibers and textiles for domestic production, instituting the US as the leader in the fabric revolution.



Drive product by creating a national network of "advanced fabric" startup incubators and connect them with market facing companies to enable exciting product ideas to emerge across the country.



Enable companies to execute proprietary product projects for consumer and defense applications.

### DEFENSE

Lighten soldiers' gear, provide climate control, enhance situational awareness, store energy through functional fabrics.

### CONSUMER PRODUCT

Create high value-added products based on advanced woven & nonwoven technologies.

### VENTURE CAPITAL

Fund the coming surge of advanced fabric products and startup ventures.

### TRANSPORTATION

Join the wave of intelligent transportation systems with functional fabrics.

### CONSUMER ELECTRONICS

Enable the "fabric-to-cloud" transforming apparel into consumer electronics.

### MANUFACTURING MACHINERY

Construct next-generation equipment & machinery to produce new fibers & textiles.

### ARCHITECTURAL & INTERIOR TEXTILES

Transform 'this old house' to now monitor, act, and react all by itself.

### APPAREL

Commercialize smart clothes that can cool, change color, adjust size, mask or transmit odors, take photos, and so much more.

### SOFTWARE & DATABASES

Develop CAD tools and databases to enable the design of functional fabrics.

### RAW MATERIALS

Supply advanced functional materials for fibers and fabrics.

### MEDICAL TEXTILES & SCANNERS

Detect impending medical events and save lives with clothing.