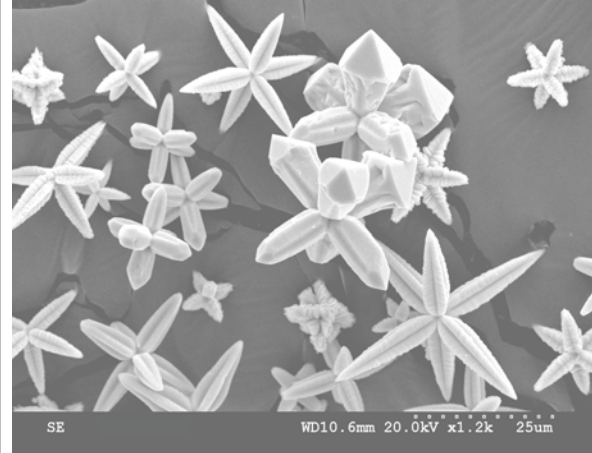


## TECHNOLOGIES

Exploring game-changing technologies while protecting service members, non-combatants, and the environment...

M2 Technologies, Inc. (M2) is a woman-owned small business specializing in defense technologies that enhance force protection, mitigate the effects of conflict, and provide sustainable solutions to top priority technical issues. From concept to implementation, M2 leads in the development of innovative technology solutions that help our military forces manage conflict and reduce unintended consequences of military, law enforcement, and emergency operations.

ECC performs cutting edge nanomaterials research.



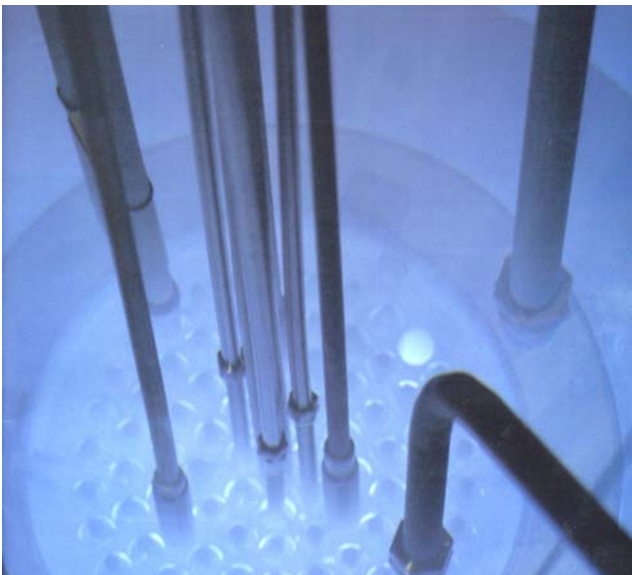
*A government, academic, and industry partnership...*

The Expeditionary Capabilities Consortium (ECC) was formed by M2 Technologies, Inc., (M2) in partnership with Kansas State University (KSU) under the auspices of the U.S. Marine Corps and supports modernization efforts in concert with the USMC Program Executive Officer, Land Systems (PEO LS).

Other industry, academic, and governmental agencies such as CABEM Technologies, Inc., Vanderbilt University, the University of Surrey (England), the Southwest Research Institute, and Marine Corps Systems Command participate in the ECC to form interdisciplinary teams and support specific developmental goals as needed.

The ECC combines path-finding researchers with operational problem solvers to analyze requirements, conduct fundamental research, perform technology assessments, resolve identified technical issues, and support the transition of sustainably developed capabilities. Our primary objective is to close identified capability gaps through the generation and development of emerging technologies for the enhancement of expeditionary war fighting and security capabilities of U.S. forces across the operational continuum.

Current ECC efforts support PEO LS technology focus areas: **Power and Energy** to decrease demands on logistics systems by providing new ways to generate, store, and distribute power on the modern battlefield; **Fuel Efficiency (Energy and Conservation)** to improve small unit self-sufficiency during long duration, expeditionary operations; **Modeling and Simulation** to shorten materiel development cycles; **Enhanced Safety, Survivability, and Force Protection** to improve the overall health and long-term sustainability of both military personnel and materiel in austere environments; **Persistent Surveillance and Sensors** to improve battlespace awareness in real and near-real time while decreasing the need for dedicated robotics operators; **Environmental Assessments** to provide support for sustainable materiel development; and **Light-weight Materials** development to harvest recent scientific breakthroughs developed to increase tensile and ductile strength of lightweight bionanocomposites.



ECC utilizes KSU's Nuclear Reactor for key research.

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GSA MOBIS Schedule Number: GS-10F-0386N

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## Recent Projects

Selected examples of recent ECC projects include the following:

- Standoff Bomb Detection
- Stopping Vehicles Remotely
- Betavoltaic Devices
- Hydrogen Fuel from Water Using Solar Energy
- Power Management and Control in All Electric and Hybrid Electric Combat Vehicles
- Adaptive Camouflage and Stealth Materials
- Adaptable Strategies for Robotics
- Controlling Robots Teams in Urban Environments
- Lightweight High Performance Bionanocomposites for Military Body Armor Related Applications
- Environmental and Safety Life Cycle Assessment Support
- Human and Vehicle Thermal Effects - Thermal Safety Planning Software (TSPS)



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STAN (sweating manikin) tests thermal properties of military uniforms/gear.

## The way ahead...

M2 is at the forefront of forming high performance interdisciplinary teams to explore and develop innovative military capabilities. Future conflicts – whether regional or global – require the ability to protect non-combatants, infrastructure, and the environment from collateral damage; protect military, governmental, and non-governmental personnel from harm; and to rapidly achieve the desired military and political end state under restrictive Rules of Engagement in a casualty-averse environment. M2 and our academic and industry teaming partners are pioneering non-traditional technologies and applications to aid and enhance these abilities.

Our work enhances U.S. National Security by providing military, law enforcement, and emergency responders with enhanced flexibility and capabilities. Our criteria for developing new technologies are that they be life-conserving, environmentally friendly, and fiscally responsible.

Our operational focus and predictive analysis provide decision makers with non-traditional solutions to neutralize or defeat threats posed to U.S. National Security interests at home and abroad.

### Other Points of Contact:

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# TECHNOLOGIES