The integration of advanced materials, manufacturing processes, tooling and fixturing will result in reductions in gross weight, vibration, interior noise, and life-cycle costs, as well as increases in mission range, survivability, and operational availability. These improvements are made more affordable due to significant reductions in labor and in operating and support (O&S) costs.

**Hull**
- Laser forming, welding, and cutting
- Laser cutting, welding, and welding of structural shapes
- Sonar dome fairings
- Improved paint removal and spray systems

**Information Technology**
- Electronic data transfer
- Intelligent management of documents and data

**Autonomous Ship Systems**
- Intelligent control
- Remote sensors
- Condition-Based Maintenance
- Advanced lubricants
- Information systems

**Drivetrain Technologies**
- Gear performance prediction
- Reduced noise and vibration design
- Condition monitoring

**Other**
- Environmental systems
- Lifecycle engineering (RepTech)
- Wear and corrosion-resistant alloys for structures, valves, and tubing
- Simulation-Based Design

**Combat Systems**
- Advanced torpedo systems
- Anti-torpedo torpedo

**Auxiliary Systems**
- Acoustic refrigeration

**Propellor**
- Design
- Inspection
- Cladding
- Manufacturing support
- Repair