



MARINE CORPS SYSTEMS COMMAND
PROGRAM EXECUTIVE OFFICER LAND SYSTEMS



S&T Overview

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Tuesday, 1 May, 2012
Norfolk, Virginia

S&T Focus Areas

- **Power and Energy**
- **Fuel Efficiency**
- **Survivability/Mobility**
- **Modeling and Simulation**
- **Fire Suppression**
- **Common C4I Architecture**
- **Power/ Thermal Management**
- **Lighten the MAGTF**





Program Executive Officer Land Systems



Advanced Technology Investment Plan 2012



Valley of Death



“If you don't know where you are going, you'll end up somewhere else.”- Yogi Berra



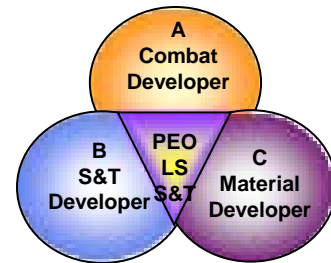
What it takes to transition

- 1. Understand the Operational Concept**
- 2. Define the required capability**
- 3. Prioritize the Capability Gaps**
- 4. Align Gaps with S&T Initiatives**
- 5. Leverage S&T Venues**
- 6. Collaborate with PMs/ Engineers**
- 7. Successful POM submission**
- 8. Integrate/Transition to Warfighter**



PEO LS S&T

Concept to Capability Process



"Three Circles"

- Power/Energy
- Fuel Efficiency
- Surv/Mobility
- M & S
- Fire Suppression
- Common C4I Vehicle Arch
- Power/ Thermal Management

1. Identify/Prioritize Top Program Issues



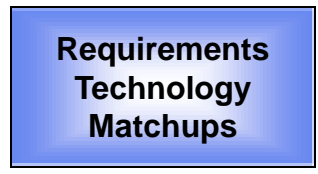
2. Identify and Align Concept/Core Capabilities



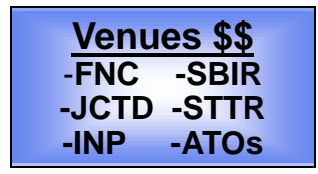
3. Identify and Align to MGL - determine all delta's



4. STO Alignment to Issues or Identified Deltas



5. Matching Requirements with Technology or Identified Deltas



6. Matching Gaps in Technology to Venue/ Resources/\$\$'s



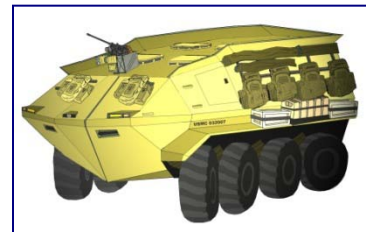
7. Signed Agreement for Transitioning Technology



8. Budget for the Technology Insertion/Active role in POM

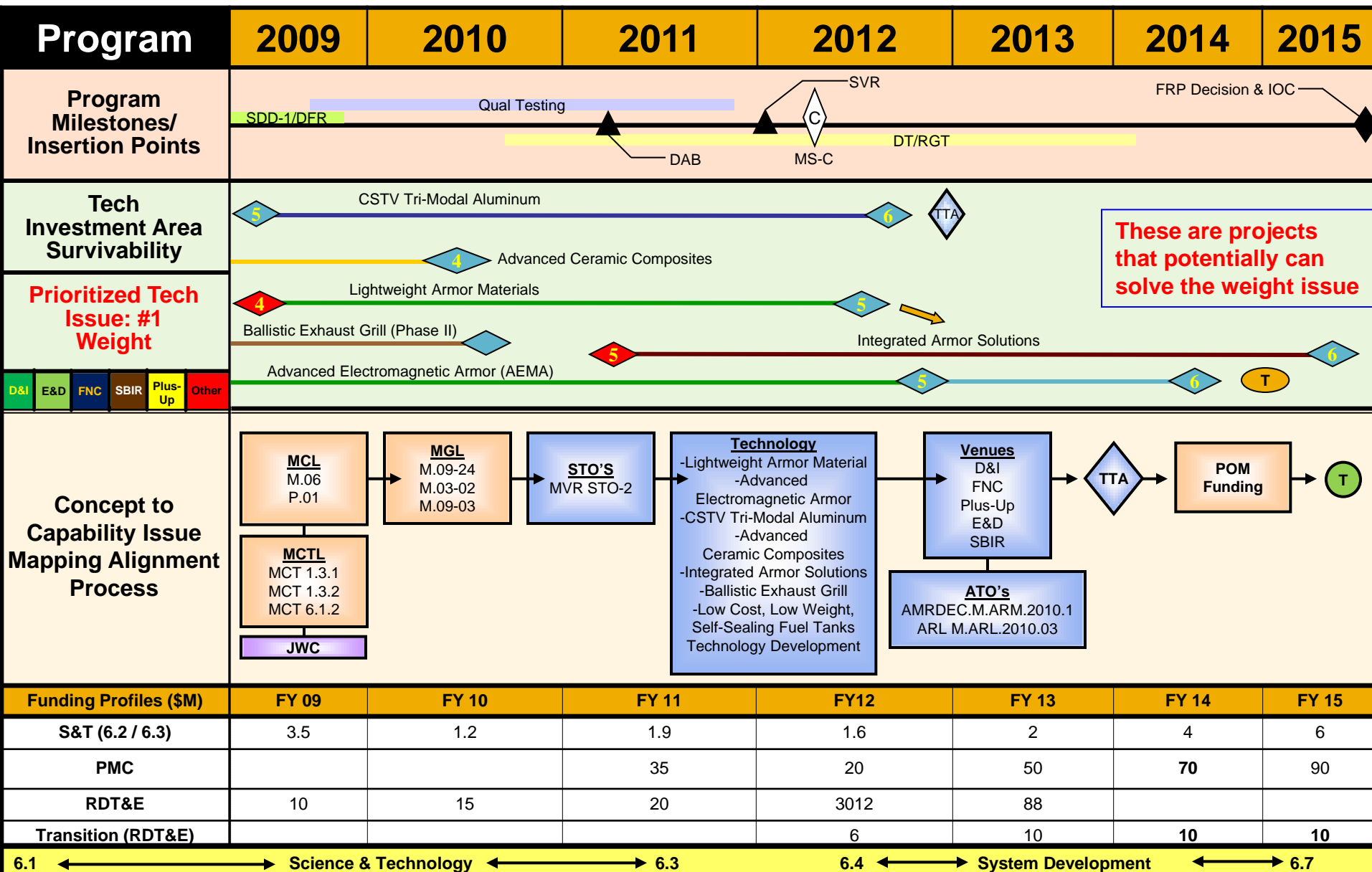


9. Transition Technology into POR



10. Capability - Leverage all S&T Resources to Close Warfighter Gaps

The Result ~ Advanced Technology Investment Plan



These are projects that potentially can solve the weight issue



S&T Investments

PM	\$(M)
PM Medium/ Heavy Tactical Vehicles MTVR & LVS	65.0
PM Light Tactical Vehicle JLTV/ HMMWV & ITV	14.4
PM AAA ACV/ AAV & MPC	16.4
PM G/ATOR	13.1
PM CAC2S	3.5
PM LW 155	4.2
TOTAL	117.6
Average/ Program	\$19.6 M



Where We're Going

- **“Protected Efficient Mobility”**
 1. **Lighten MAGTF - Reduce Weight while increasing Survivability & Mobility**
 2. **Increase Fuel Efficiency of our Tactical Vehicles**
 3. **Power & Energy (Both Onboard and Exportable Power)**



Power and Energy

- **Goal:** Technologies that expand the overall capability of the Marine Air Ground Task Force (MAGTF) by increasing the availability/capability of battlefield power while decreasing the logistic footprint.



Fuel Efficiency

- **Goal:** Technologies that can enhance vehicle performance and capability while reducing fuel consumption on the battlefield.



Survivability/ Mobility

- **Goal:** Technologies that increase the survivability and mobility of the Marine and the vehicle.



Modeling & Simulation

- **Goal:** Tools to facilitate a Systems Engineering approach to platform design and enable M&S based development, acquisition and life cycle management of Tactical Vehicles.



Fire Suppression

- **Goal:** Technologies that safely extinguish internal & external vehicle fires without adversely affecting the crew – preferably a ‘systems of systems approach’ that provides fire containment and/ or suppression for the cab, crew, tires, fuel tank and engine compartment.



Common C4ISR

- **Goal:** Development of an ‘Open Source’ specification / system for networked (internal & external) tactical vehicles that allows ‘plug and play’ mission capabilities.



Power/ Thermal Management

- **Goal:** Improve power / thermal management efficiencies for tactical vehicles.



Lighten the MAGTF

- **Goal:** Lightweight Composite/ Materials for Armor & Components.



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