Section 7.8 PEO LS Program

MEDIUM TACTICAL VEHICLE REPLACEMENT

MTVR

Program Background

The Medium Tactical Vehicle Replacement (MTVR) family of 6-wheel, 7-ton, all-terrain multi-purpose vehicles serves as the Marine Corps' key means of moving supplies and equipment across severe environments. Manufactured by Oshkosh Corporation, the vehicles were first fielded in 2001 as replacements for the obsolete M809 series and M939 series 5-ton vehicles. The platforms have an on-road cruising range of 300 miles (483 kilometers), the ability to ford five feet (1.5 meters) of water, and traverse 60% gradients and 30% side slopes with the maximum cross-country load. Operational performance is further enhanced by advanced technologies such as the Oshkosh TAK-4® independent suspension system and Command Zone™ integrated control and diagnostics system. MTVR variants include: Standard Cargo and Extended Wheel Base Cargo Trucks, dump trucks, tractors, wreckers, and High Mobility Artillery Rocket System Resupply Trucks. Approximately half of the vehicles are armored, and some possess a reducible height capability.

More than 8,900 MTVRs are in service with the Marine Corps. The Marine Corps' Ground Combat Tactical Vehicle Strategy reduced the MTVR

Authorized Acquisition Objective to 8,750 vehicles. The Navy Expeditionary Combat Command also possesses more than 1,800 MTVRs that are used in riverine and combat engineering missions.

To improve the vehicle's level of protection against mines and IEDs, the MTVR Armor System was designed as a permanent modification to the vehicle. It provides complete 360-degree protection as well as overhead and underbody protection for the cab occupants.

The MTVR was designed with a 22-year service life, and neither a Service Life Extension Program nor a modernization upgrade is currently scheduled.

Program Status

The MTVR has been in service since 2001. More than 2,000 MTVRs have seen service in Iraq and Afghanistan. With its 70% off-road mission profile and highly survivable armor package, the MTVR has been used heavily in theater for logistics missions as well as for other missions as assigned. The MTVR is currently in sustainment.

MTVR's Top Technical Issues:

1. Fuel Economy

Given the MTVR's 3.8 miles per gallon fuel consumption rate and the fully burdened cost of fuel, even moderate increases in the fuel efficiency of the MTVR can potentially save lives and millions of dollars. Therefore, technologies that improve MTVR fuel efficiency will have a dramatic effect across the MAGTF. Such technologies include idle reduction or elimination through an Auxiliary Power Unit; engine accessory drive electrification; engine-mounted fuel-efficiency technologies; high-efficiency transmissions; regenerative braking; and hybrid-electric drives.

2. Safety

Safety technologies are required that increase vehicle stability and mitigate the effects of vehicle rollovers, while maintaining the ability of the MTVR to achieve its 70% off-road/30% on-road mission profile.

3. Armor Corrosion / Repair

Technologies are needed that increase vehicle stability and that can mitigate the effects of vehicle rollovers while maintaining the ability of the MTVR to achieve its 70% off-road/30% on-road mission profile.

4. Delamination of Transparent Armor

Technologies are required to extend the useful life of transparent armor that will eliminate or reduce the frequency of replacement due to reduced visibility or find new methods to repair/re-laminate transparent armor.

ACAT 1C/SUST

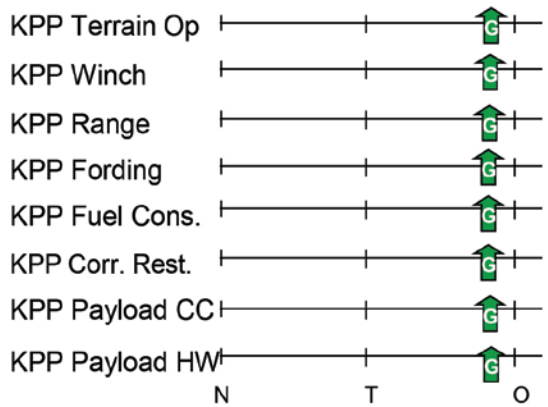
C Y S Y P G

MTVR

MS C = Feb 2006 **AAO** = 8,750
FOC = Sep 2010

Description: MTVR is a 7.1-ton off-road, 15-ton on-road medium lift tactical vehicle available in six variants: cargo, extended wheelbase cargo, dump, tractor, wrecker and HIMARS Resupply Vehicle. Variants can be armored or not, and with some cab armor able to be removed (reduced) for greater shipboard transport flexibility.

JAN 2016



*Based on estimated and calculated values

N – no capability **T** – Threshold **O** - Objective

Contract Data - FFP/IDIQ
Contractor Oshkosh
Start – Complete May '12 – May '16

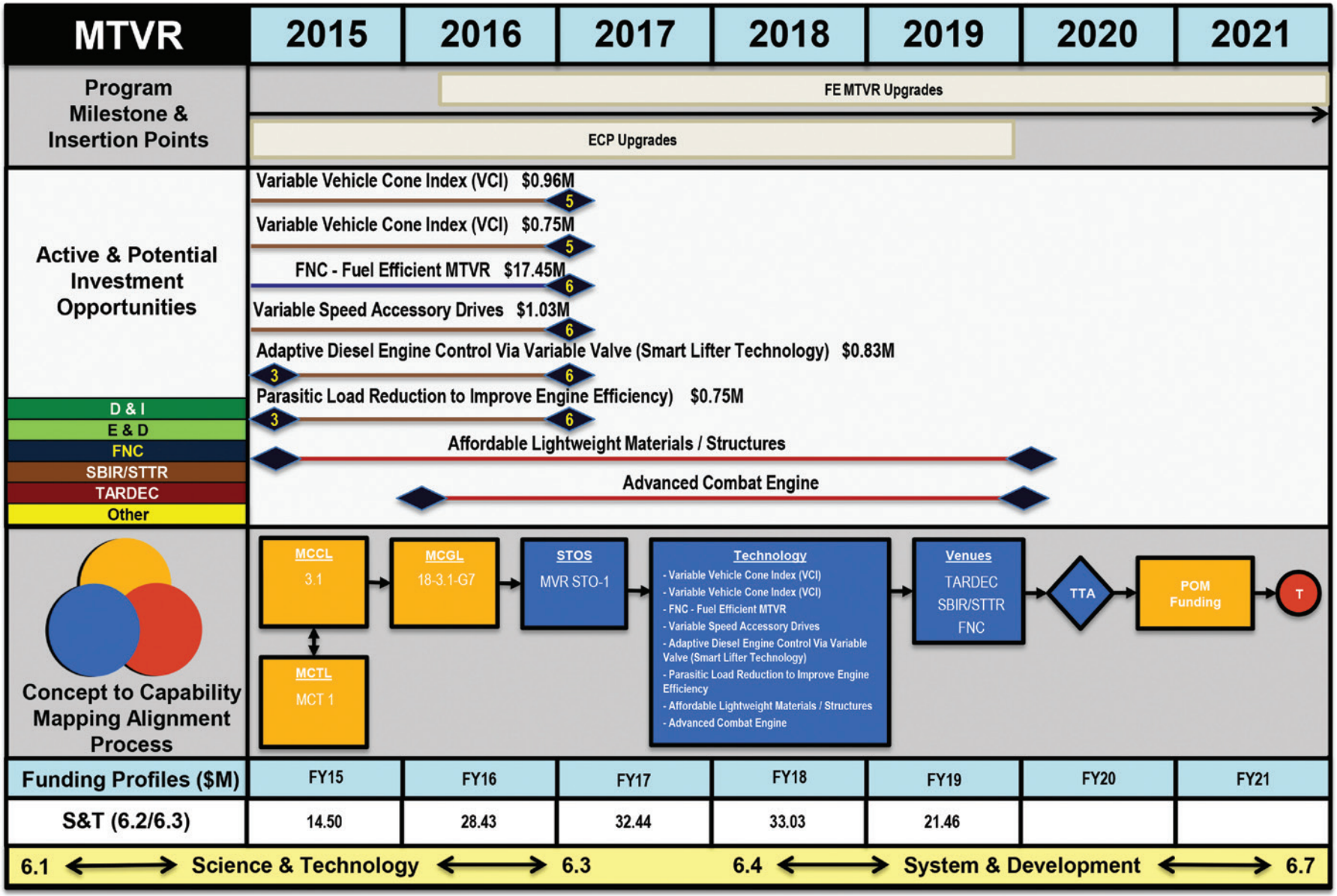
Next Contract: Engineering & Logistics Support & Services (ELSS)

CPI = N/A SPI = N/A EAC = N/A

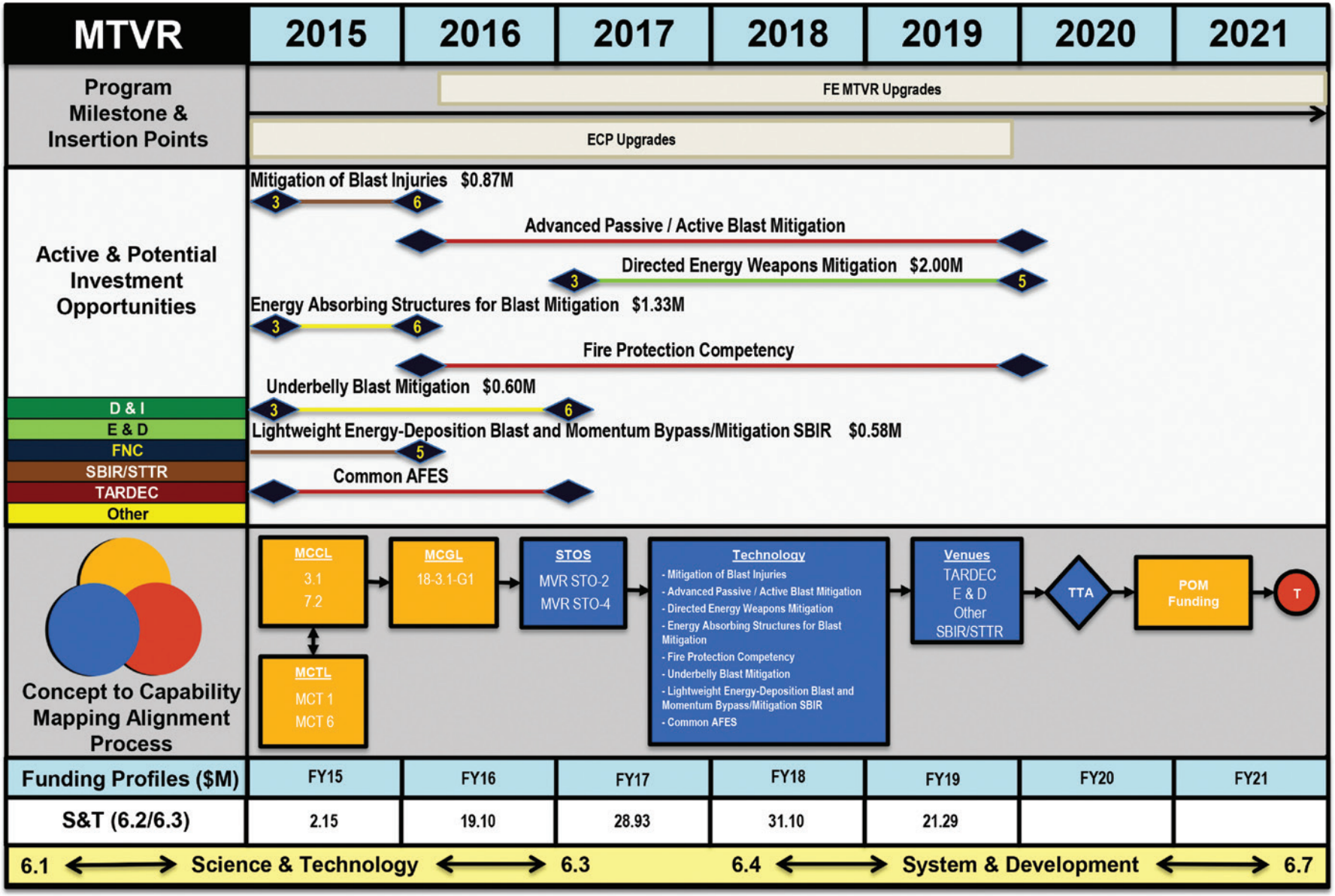
Issues: OEM responsiveness, Integration Plan, Class IX Parts Block Procurement, ECP Integration

PROGRAM	Prior	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Milestones (FOC 2010)																													
SETR Reviews																													
Test Events					IROAN FPT																								
Contract Events	INTEGRATIONS																												
												FE MTVR FNC																	
										ELSS																			
	MTVR III																												

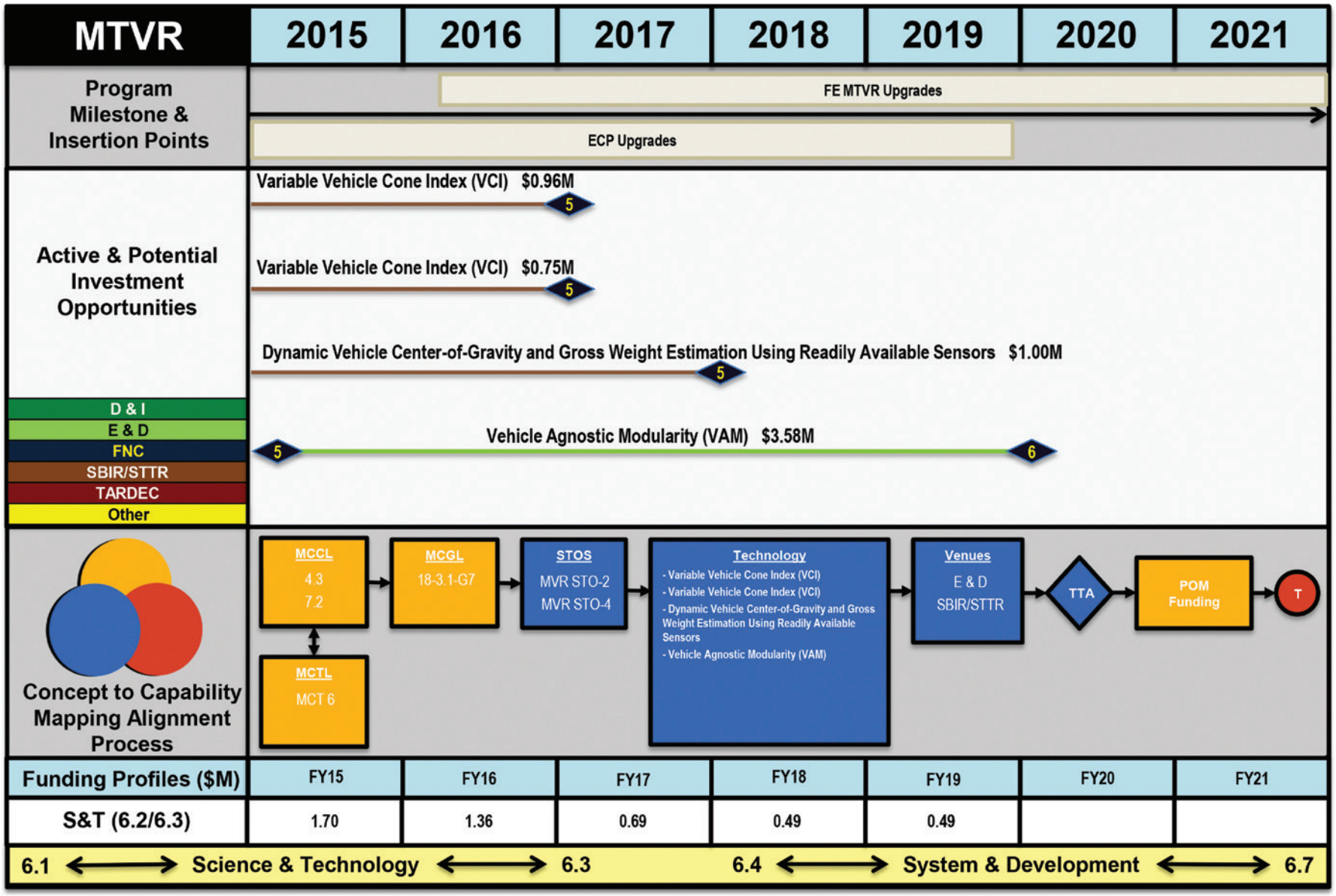
MTVR Technical Issue #1 Fuel Economy



MTVR Technical Issue #2 Increased Survivability



MTVR Technical Issue #3 Safety



Funding Profiles ($M)	FY15	FY16	FY17	FY18	FY19	FY20	FY21
S&T (6.2/6.3)	1.70	1.36	0.69	0.49	0.49		