MEDIUM TACTICAL VEHICLE REPLACEMENT

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. 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 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 8,000 MTVRs are in service with the Marine Corps. 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. Recently, the USMC extended the life of the vehicles to 2042. The program now has a requirement for a Service Life Extension Program which will begin in FY19.

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 Consumption

Given the MTVR's 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. Practical, cost-effective technologies are required to increase the fuel efficiency of the MTVR while maintaining payload capacity and mobility.

2. Increased Survivability

Technologies are required that maintain or increase survivability of the vehicle and occupants from emerging threats, including technologies that can increase armor protection while maintaining or reducing current weight; improvements in blast resistant seats; crew egress systems; and advanced fire-suppression systems. New methods to mitigate or repair current protection systems issues such as transparent armor delamination are critical to the ongoing sustainment of the Armored MTVR fleet.

3. Safety

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

MTVR

ACAT 1C/SUST

Description The Medium Tactical Vehicle Replacement (MTVR) is a medium lift tactical vehicle capable of transporting 7.1-ton off-road, 15-ton on-road and is available in six variants: cargo, extended wheelbase cargo, dump, tractor, wrecker and HIMARS Resupply Vehicle. Variants come both armored and unarmored. Some armored variants have reducible height armor for greater shipboard transport flexibility.

Key Milestones / Events

- **2QFY17**
  - MTVR DMSMS
  - MTVR IUID Plan
  - MTVR LCCE
  - MTVR LCSP
  - MTVR LRFS
  - MTVR PESHE
  - FE CARD / LCCE
  - FE LRFS
- **3QFY17**
  - MTVR Zonal Maintenance
- **4QFY17**
  - MTVR 5-yr ILA
  - FE ADM
  - FE Baseline Testing
- **1QFY18**
  - FE MTVR CDR
- **3QFY18**
  - FE MS C
- **TBD (Funding Required)**
  - MTVR Wheel Slings Test
  - MTVR Transportability ECP

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

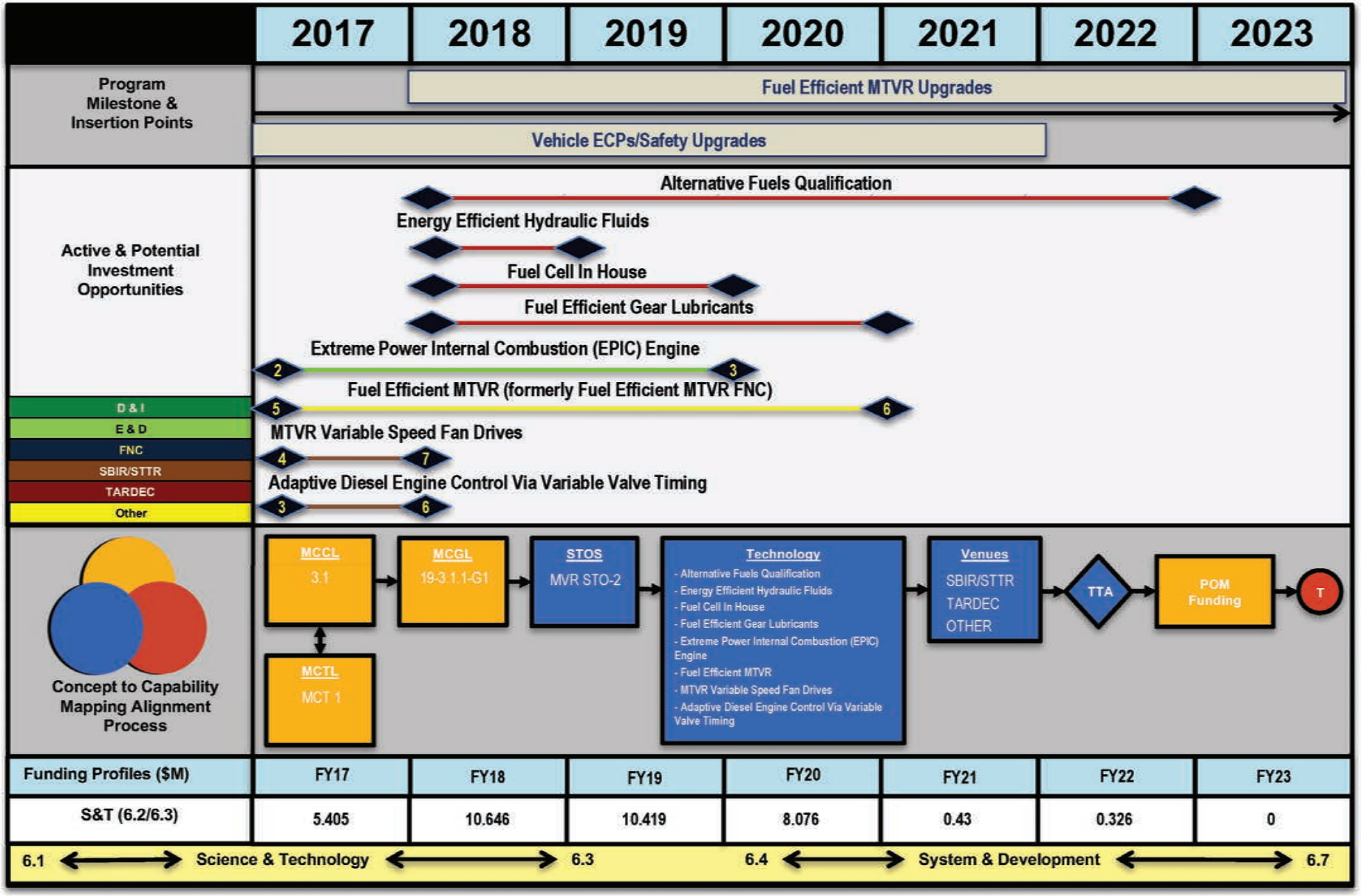
Next Contract: Engineering & Logistics Support & Services (ELSS)

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

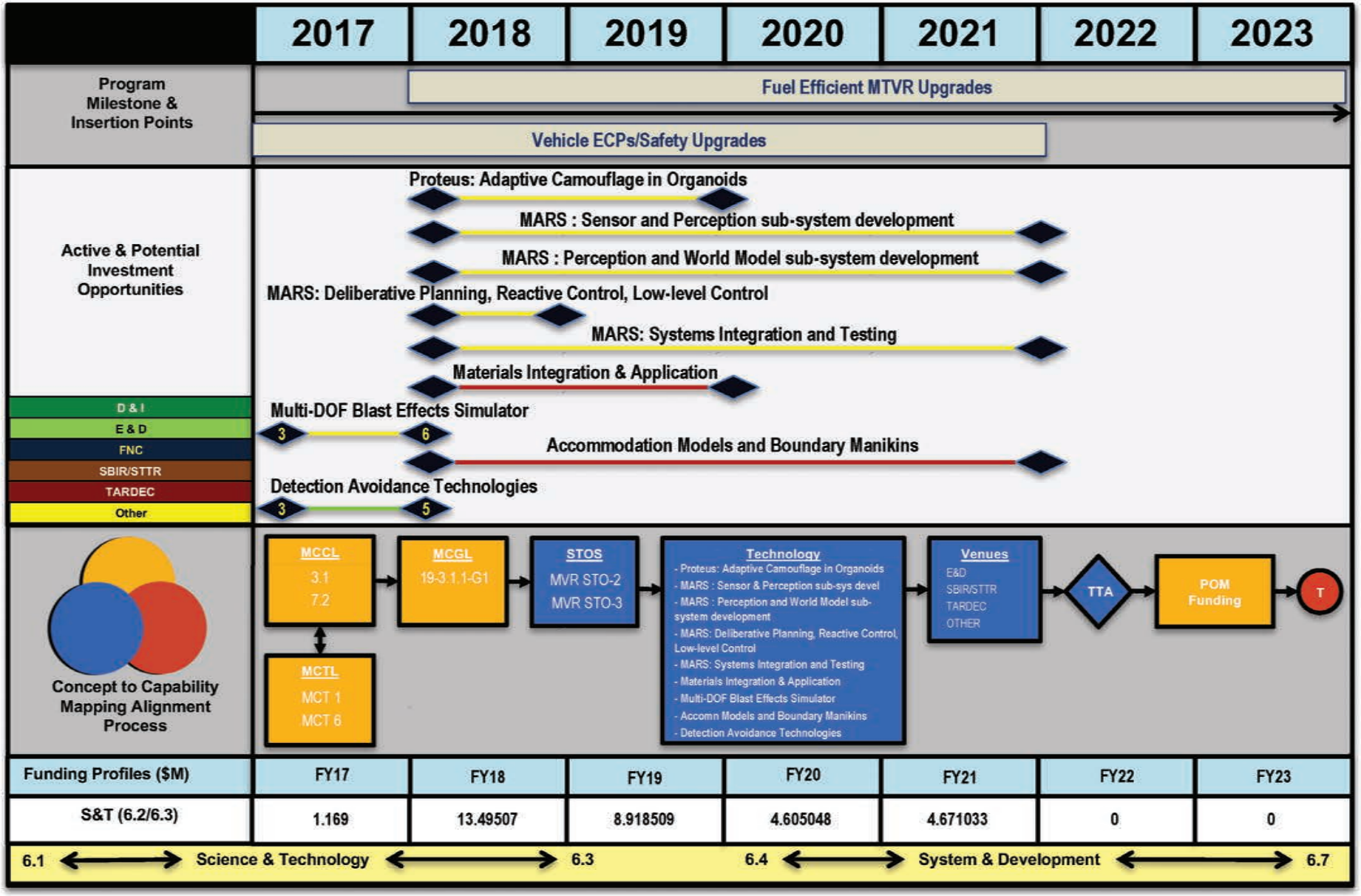
Issues: OEM responsiveness, Integration Plan, Class IX Parts Block Procurement, ECP Integration

PROGRAM	PRIOR	FY17				FY18				FY19				FY20				FY21				FY22				FY23			
		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 & Phases																													
SETR Reviews																													
Test Events	IROAN T&E																												
Contract Events	MTVR Prod					MHTV ECP Contract																							
						MHTV Production Contract																							

MTVR Technical Issue #1 Fuel Consumption



MTVR Technical Issue #2 Increased Survivability



Funding Profiles ($M)	FY17	FY18	FY19	FY20	FY21	FY22	FY23
S&T (6.2/6.3)	1.169	13.49507	8.918509	4.605048	4.671033	0	0

6.1 ⟷ Science & Technology ⟷ 6.3 6.4 ⟷ System & Development ⟷ 6.7

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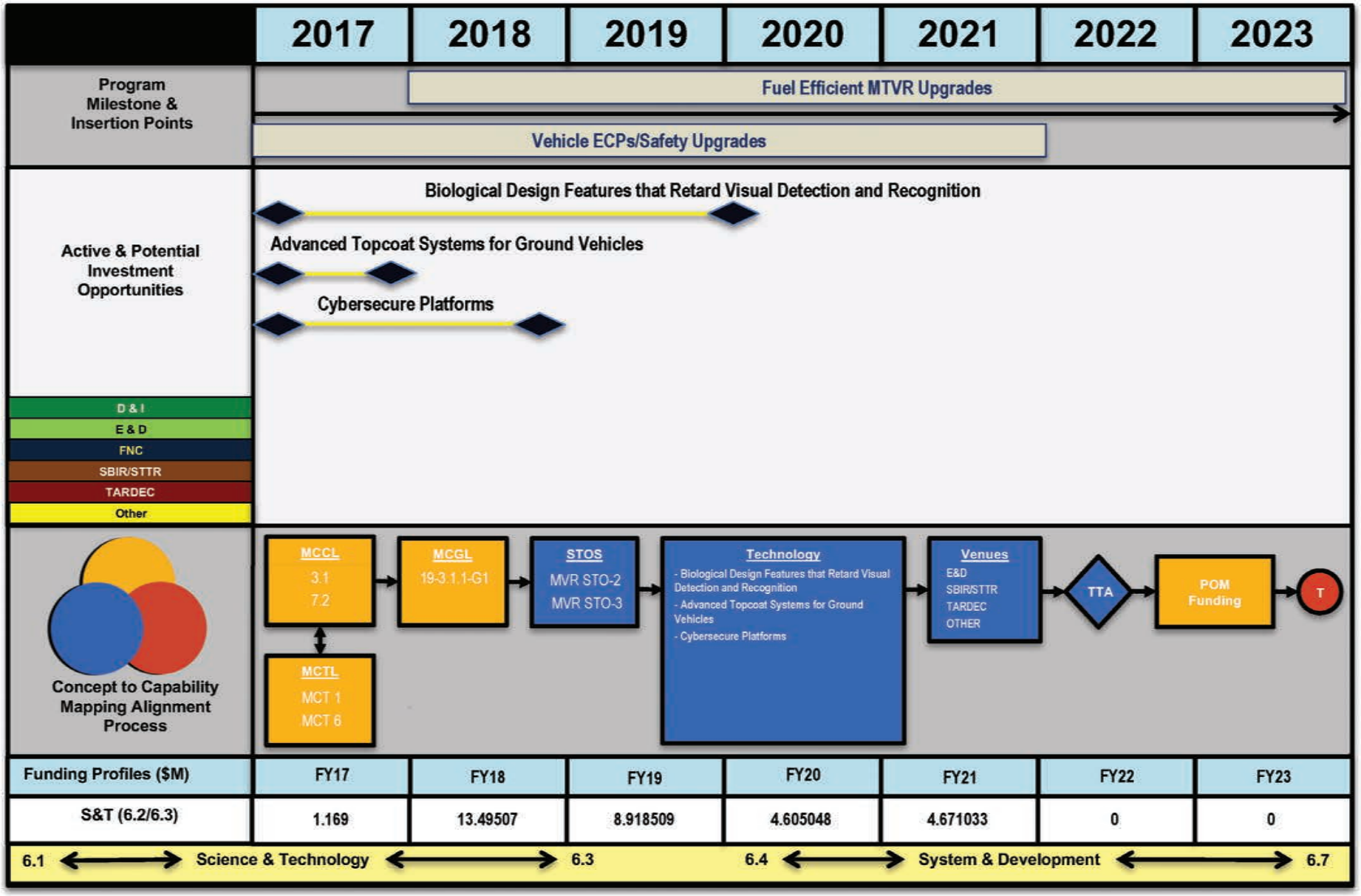

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MTVR Technical Issue #3 Safety