INTERNALLY TRANSPORTABLE VEHICLE (ITV)

Program Description

The ITV program has been developed to field a family of light attack vehicles in support of expeditionary forces. The ITV-LSV will replace the Interim Fast Attack Vehicle (IFAV) as well as fill the tactical void created by the disposal of all M151 Jeep variants. The ITV is designed to be internally transportable within both the MV-22 tilt-rotor aircraft and CH53D/E rotary wing aircraft. ITV has been fielded as a system of systems. Light Strike Vehicle supports Infantry, Recon, and SOF while Prime Mover tows Expeditionary Fire Support System mortars and ammunition trailers.

Program Status

Production and fielding completed in December 2012. Support will transition from Contracting Logistics Support to organic support in FY14. The ITV Improvement Initiative (I3) is under way to identify safety and reliability issues. Reliability and performance testing is being conducted at Aberdeen Test Center along with engineering and design analysis to improve system deficiencies. Efforts outside of the Program Office are exploring operational concepts to aid in lightening the MAGTF, including the Autonomous resupply mission.

ITV'S Top Three Program Technology Issues:

1. Stability/Braking

The ITV was designed with a narrow wheel base driven by the requirement to fit in the MV-22. Due to the unconventional vehicle wheel base the front brake proportioning valve has been adjusted to compensate for system design. This design has led to stability and breaking issues. System performance could be greatly improved with the addition of an Anti Lock Braking System.

2. Reliability/Durability

Primary vehicle areas that lack adequate reliability include the following: drive shaft, half shafts, and rear steer system. These issue areas are being addressed through the I3 effort.

3. Corrosion

Improper Chemical Agent Resistant Coating painting procedures during ITV production and lack of operator preventive maintenance, checks, and services has led to significant corrosion issues for the ITV fleet. The Program Office is currently working with the CPAC team to address the corrosion issues encountered in the ITV fleet.

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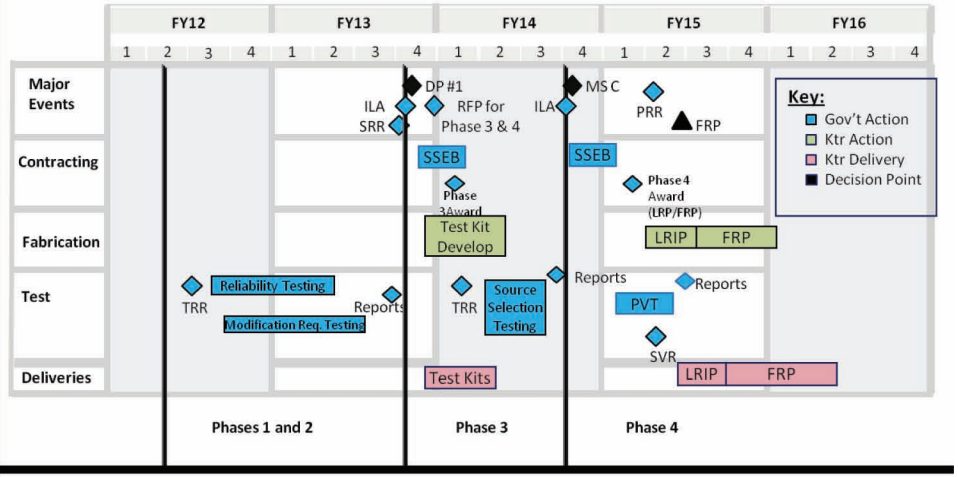
Internally Transportable Vehicle (ITV)

Proposed ITV Improvement Initiative Schedule



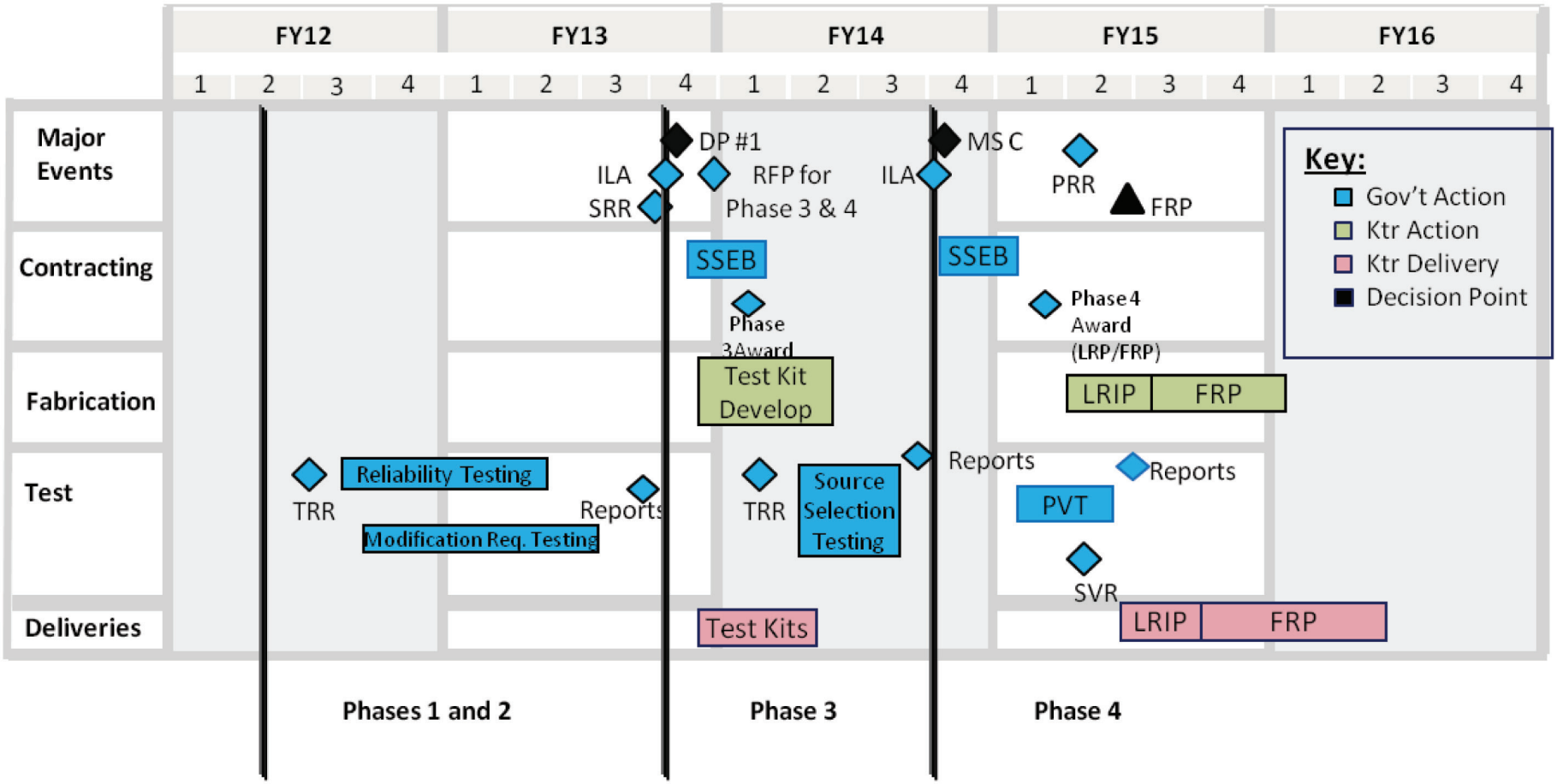
Program Description

- Capability Provided: The ITV provides the Marine Air Ground Task Force (MAGTF) with a vehicle internally transportable in the MV-22, CH-53F/G and the MH-47. The ITV serves primarily as a high mobility weapons capable platform that supports a variety of operations and provides ground units with equal or greater mobility than the MAGTF maneuver elements they support.
- System Description: The ITV is a narrow width, lightweight high mobility vehicle capable of carrying up to 2000 lbs of cargo, 4 Marines, and a crew served weapon.
- Integration / Interdependencies: The ITV Family of Vehicles supports and sustains the Prime Mover (PM) and ammo trailer for the Expeditionary Fire Support System (EFSS), as well as the Light Strike Variant (LSV).

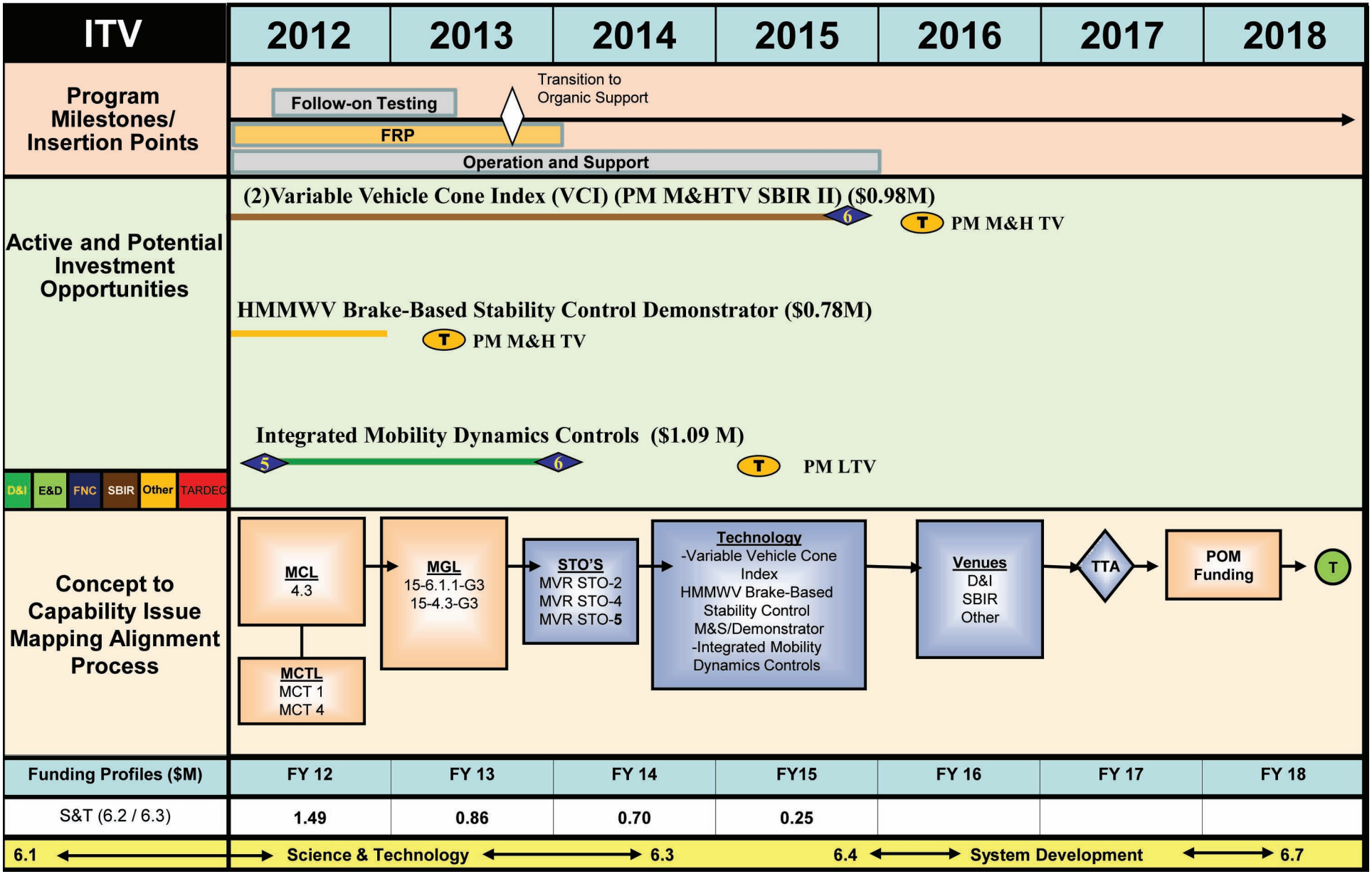
Program Status

- ACAT: III
- Original contract award date: 10 November 2004
- Contract Type: Cost Plus Firm Fixed Price
- Prime Contractor: General Dynamics Ordnance & Tactical Systems
- Current AAO: LSV 266 / PM 144
- IOC: June 2009
- Production contract ended November 2011, all units received
- Reports from the field identified post-production reliability and safety issues.
    - PM initiated post-production baseline testing at Aberdeen to identify areas to improve safety and reliability.
    - CD&I addressing PMC funding requirements in POM 15
- Currently no funding available due to CRA

Internally Transportable Vehicle (ITV)



ITV Technical Issue #1 Stability/Braking



Funding Profiles ($M)	FY 12	FY 13	FY 14	FY15	FY 16	FY 17	FY 18
S&T (6.2 / 6.3)	1.49	0.86	0.70	0.25			

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

ITV Technical Issue #2 Reliability/Durability

ITV	2012	2013	2014	2015	2016	2017	2018

Program Milestones/ Insertion Points

Follow-on Testing

Transition to Organic Support

FRP

Operation and Support

Active and Potential Investment Opportunities

Energy Absorbing Structures for Blast Mitigation Light Tactical Vehicles ($0.99M)

3 — 5

T PM LTV

Modular Vehicle Platform ($0.40M)

T PM M&H TV

HMMWV Brake-Based Stability Control Demonstrator ($0.78M)

T PM LTV

D&I | E&D | FNC | SBIR | Other | TARDEC

Concept to Capability Issue Mapping Alignment Process

MCCL
4.3

MCTL
MCT 1
MCT 4

MCGL
15-6.1.1-G3
15-4.3-G3

STO'S
MVR STO-2

Technology
-Energy Absorbing Structures for Blast Mitigation
-HMMWV Brake Based Stability Control M&S & Demonstrator
-Modular Vehicle Platform

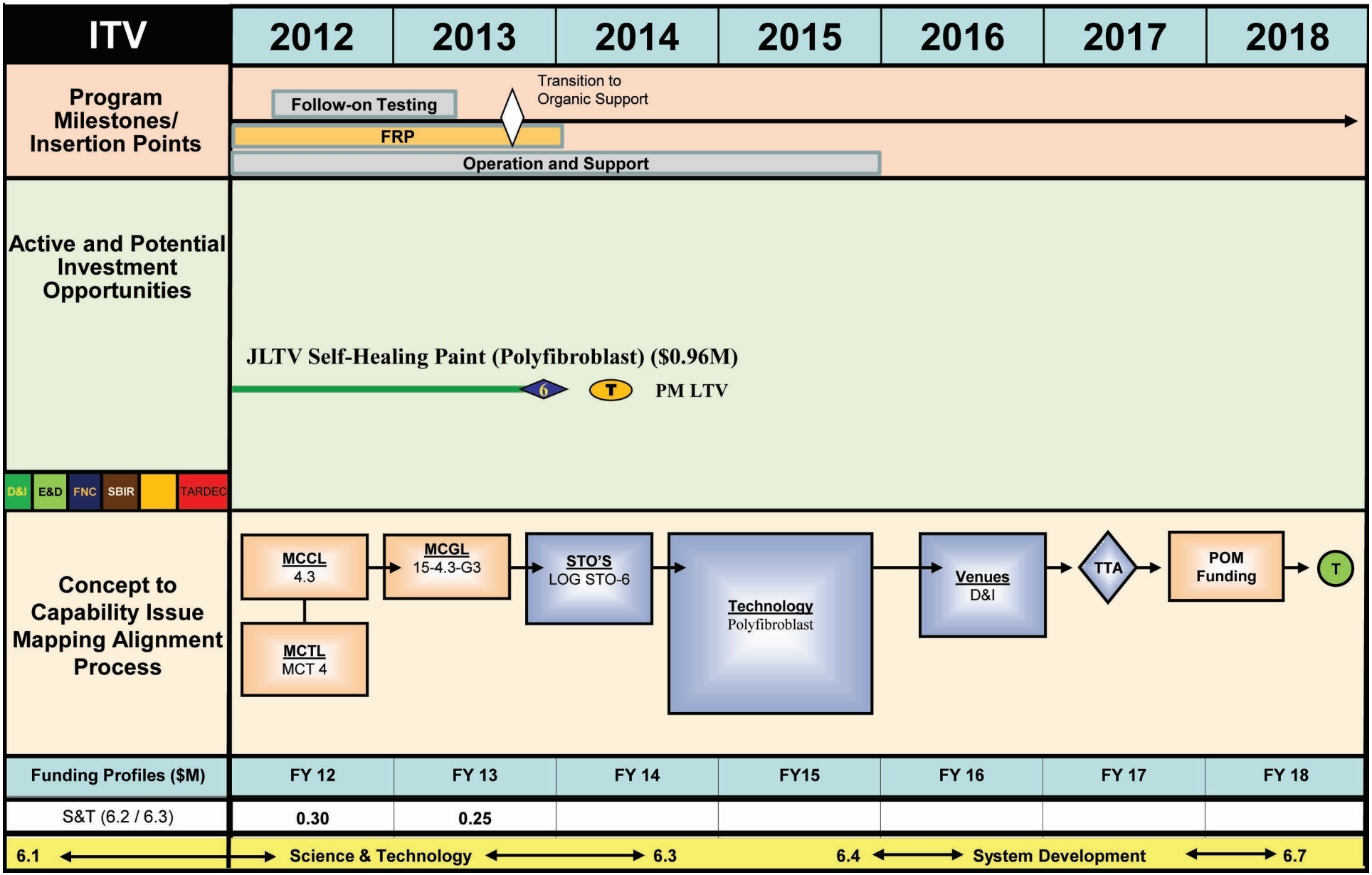
Venues
D&I
Other

TTA

POM Funding

T

Funding Profiles ($M)	FY 12	FY 13	FY 14	FY15	FY 16	FY 17	FY 18
S&T (6.2 / 6.3)	1.43	0.16	0.58				

6.1 ← → Science & Technology ← → 6.3 6.4 ← → System Development ← → 6.7

ITV Technical Issue #3 Corrosion