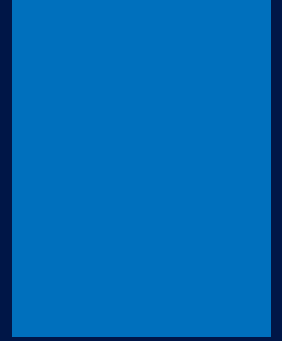# Large Truck Crash Causal Factors Study (LTCCFS)

Commercial Vehicle Safety Summit
November 30, 2022

U.S. Department of Transportation
**Federal Motor Carrier Safety Administration**

# Agenda

- Background
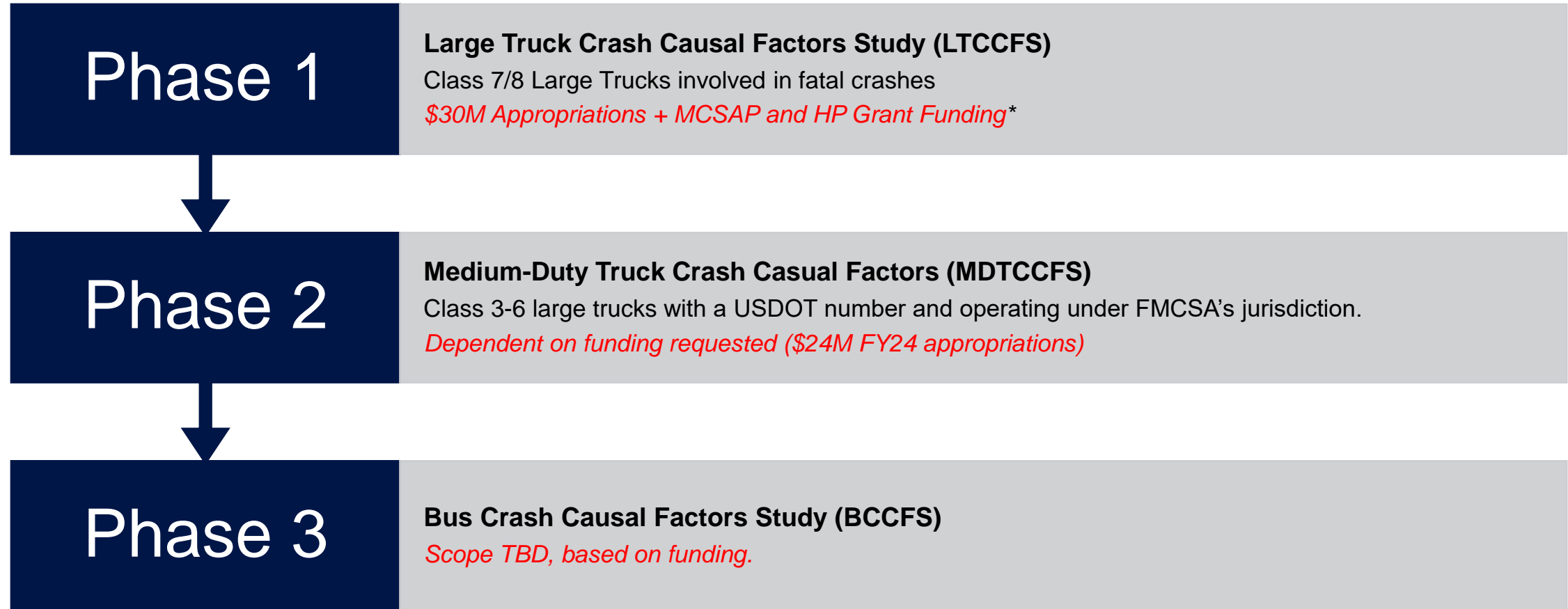- Progress to date
- MCSAP Grants
- Next Steps

# Background

# Background

- Request for Information (RFI) was published January 15, 2020 and closed for comment on March 16, 2020.
  - 167 comments received from industry, academia and various stakeholders, including CVSA.
- Funding:
  - In FY21, Congress appropriated $30M to be used by FMCSA, in collaboration with other research participants, on a study of the causes of large truck crashes, available until expended.
  - Motor Carrier Safety Assistance Program (MCSAP) and High Priority (HP) grant money.
- Bipartisan Infrastructure Law (BIL)
  - In FY22, Congress passed the BIL which included more prescriptive language on the LTCCFS than the appropriations bill.
  - FMCSA has been working with Congress to reconcile differences in legislative language with a plan to move forward with a phased approach.
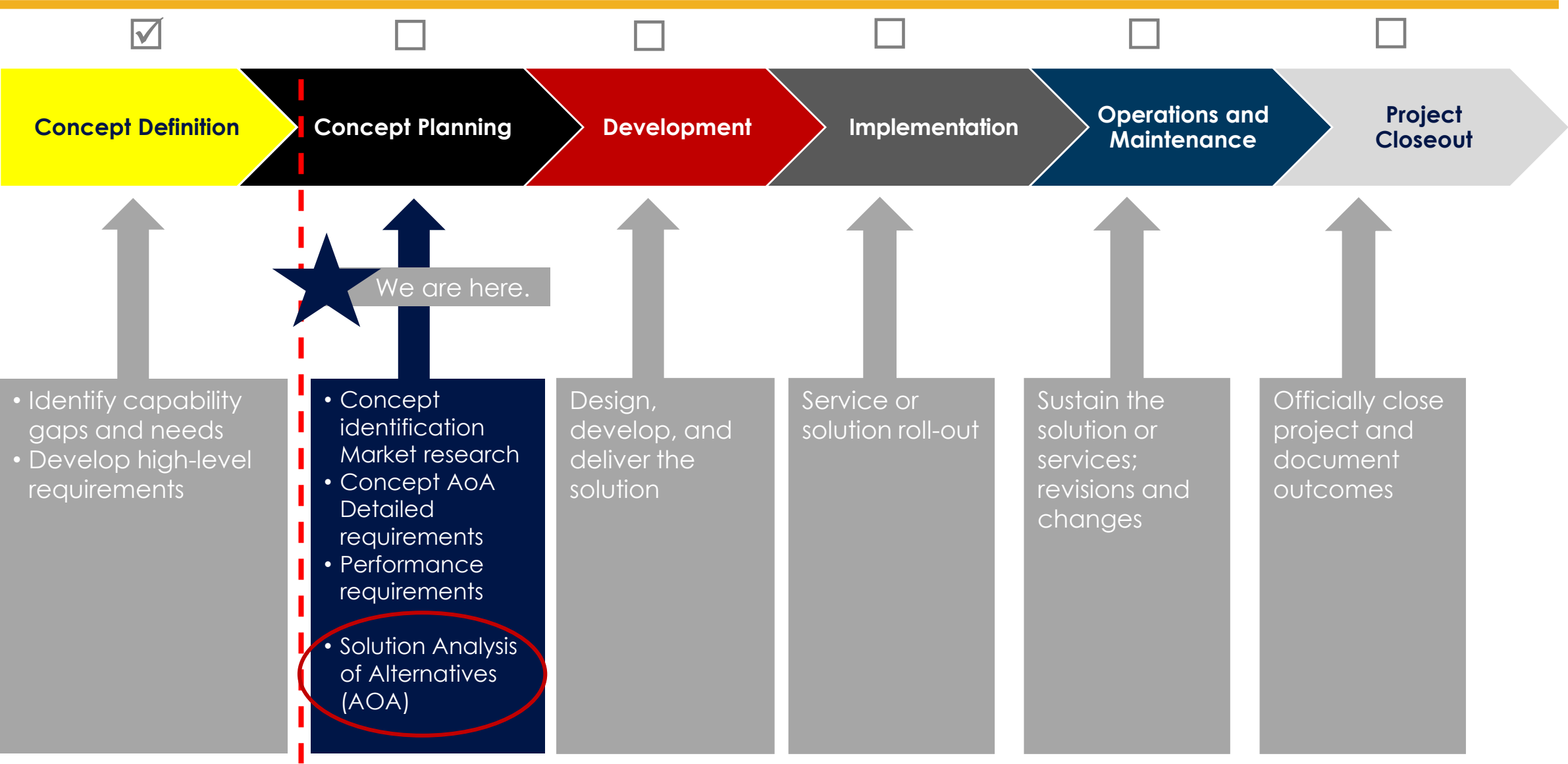
# Crash Causal Factors Program

**Phase 1**

**Large Truck Crash Causal Factors Study (LTCCFS)**

Class 7/8 Large Trucks involved in fatal crashes

*$30M Appropriations + MCSAP and HP Grant Funding*\*

**Phase 2**

**Medium-Duty Truck Crash Casual Factors (MDTCCFS)**

Class 3-6 large trucks with a USDOT number and operating under FMCSA's jurisdiction.

*Dependent on funding requested ($24M FY24 appropriations)*

**Phase 3**

**Bus Crash Causal Factors Study (BCCFS)**

*Scope TBD, based on funding.*

\*MCSAP = Motor Carrier Safety Assistance Program; HP = High Priority

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# LTCCFS Study Phases

| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Concept Definition** → **Concept Planning** → **Development** → **Implementation** → **Operations and Maintenance** → **Project Closeout**

★ We are here.

- Identify capability gaps and needs
- Develop high-level requirements

- Concept identification Market research
- Concept AoA Detailed requirements
- Performance requirements

- Solution Analysis of Alternatives (AOA)

Design, develop, and deliver the solution

Service or solution roll-out

Sustain the solution or services; revisions and changes

Officially close project and document outcomes

**Source:** FAI Project Managers Guidebook

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# Phase 1: LTCCFS Study Scope

**2 Years**
Data Collection

**~30**
Participating States
Nationally Representative Sample

**2,000**
Fatal Crashes
+
**Convenience Sample**
of Injury Crashes

**Class 7/8**
Large Trucks
>26,000 lb.

**Who Collects the Data?**

**Investigators**
*(on-scene)*
+
**Truck Inspectors**

Use FMCSA's definition of injury instead of NHTSA's KABCO scale

Exclude tow-aways
Exclude medium-duty vehicles*

# LTCCFS High-Level Requirements
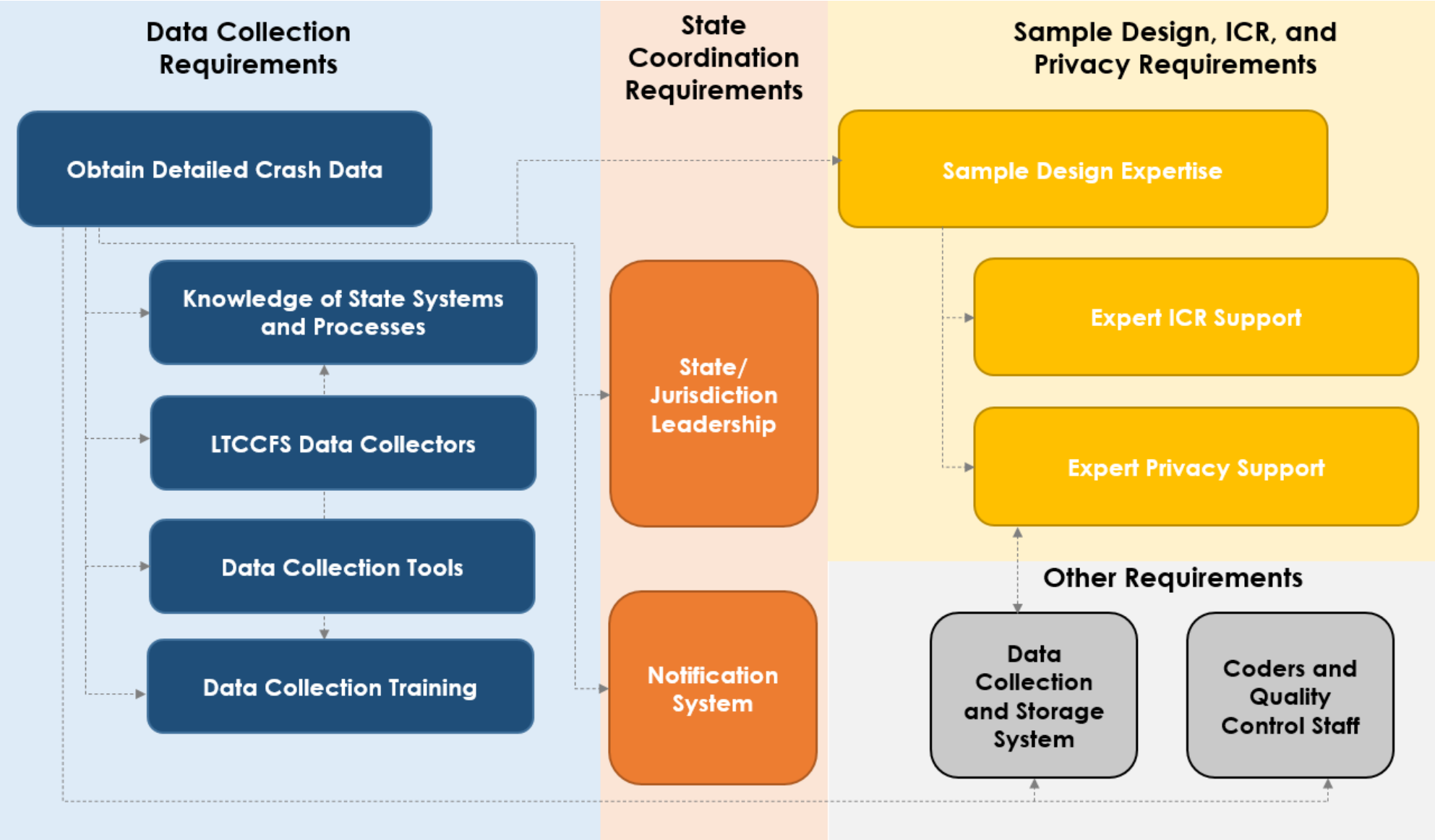
# Planned LTCCFS Components



Study Design and ICR

Data Collector Training Materials

Data Quality Control

Data Collection

IT Solution/IT Database

Data Analysis
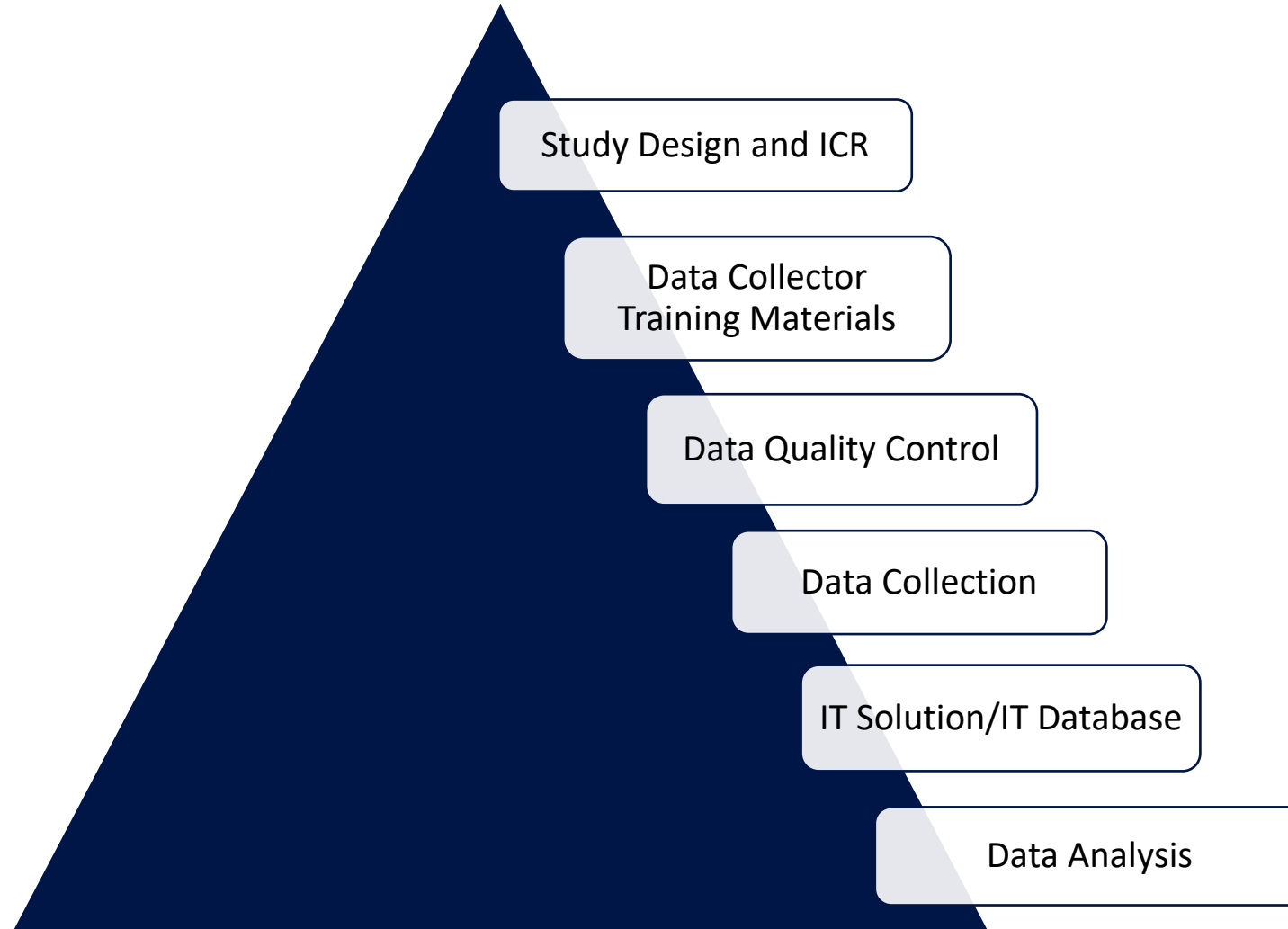
# LTCCFS High-Level Timeline
*(subject to change)*
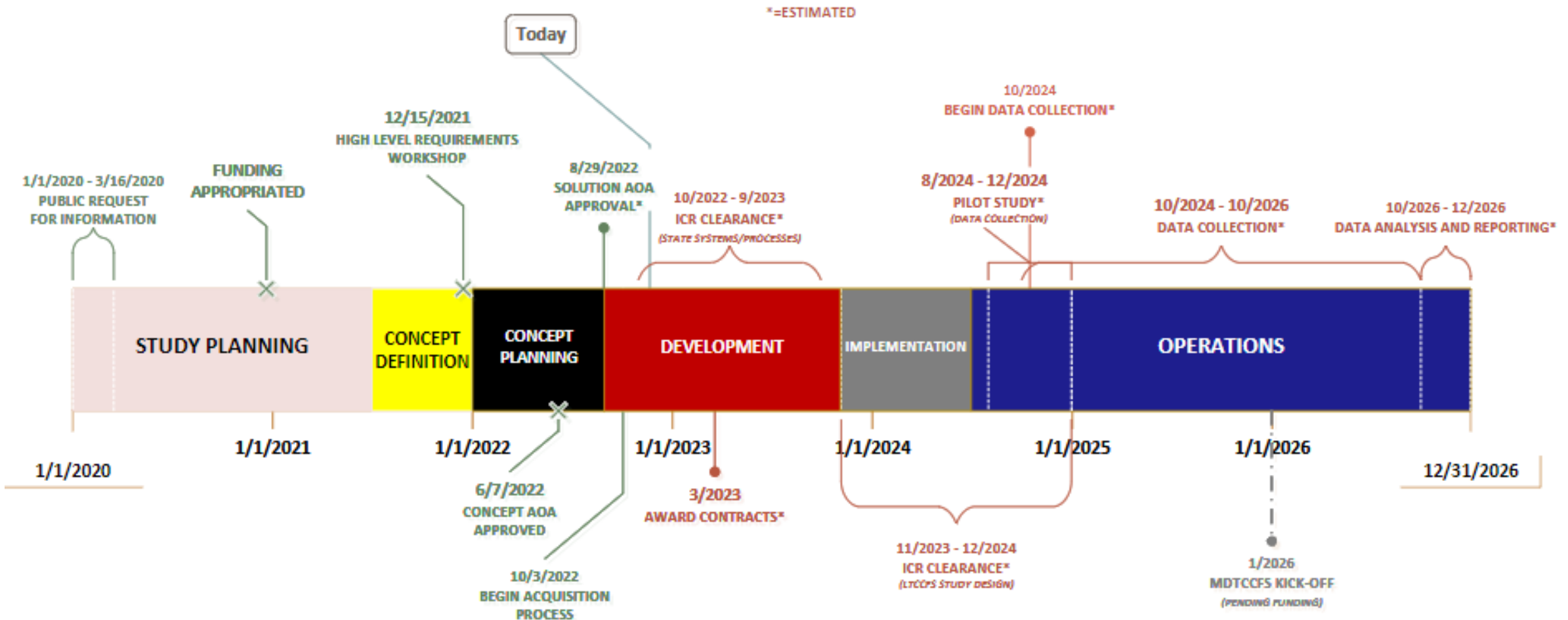
# MCSAP Grants

# MCSAP Eligibility

- Expense eligibility determinations established by FMCSA

- [MCSAP Comprehensive Policy (MCP)](#)
  - Full policy on FMCSA Funding Opportunities
  - Cost eligibility guidance is condensed in Appendix A

- Supplemental Policy issued 6/15/2022

# MCSAP Eligibility (cont.)

- **Crash Investigation** - If specifically included in an approved project plan and budget.
  - Investigation must be limited to <span style="color:red">fatal and serious injury</span> crashes involving CMVs covered under the State's or FMCSA's definition of a commercial motor vehicle. Recipient must maintain other CMV safety efforts (inspections, investigations, safety audits, traffic enforcement, etc.) at an acceptable level as approved by FMCSA.
    - <span style="color:red">Investigating officer/personnel must be NAS A/B certified</span>
    - Required training and certifications necessary to conduct crash investigations
    - Other trainings necessary to collect, process, analyze, and determine facts collected at crash scene.

# MCSAP Eligibility (cont.)

- **Crash Reconstruction** - If specifically included in an approved project plan and budget
  - Reconstruction must be limited to crashes involving CMVs covered under the State's or FMCSA's definition of a commercial motor vehicle. Recipient must maintain other CMV safety efforts (inspections, investigations, safety audits, traffic enforcement, etc.) at an acceptable level as approved by FMCSA.
    - Reconstruction officer/personnel <span style="color:red">must include a NAS A/B certified officer</span> as a part of the analysis.
    - Required training for Reconstruction certification allowed.

# MCSAP eligibility for equipment and other resources

- Each jurisdiction will determine equipment needs and processes for collecting crash data
- Crash Investigation/Reconstruction Equipment may include:
  - Scene documentation
    - Total stations
    - Drones
    - Software for scene documentation
  - Data Collection
    - Heavy Vehicle Event Data Recorders (HVDER)
      - OEM or Generic options are available
    - Crash Data Retrieval (CDR)
      - Used for passenger carrier vehicles
        - Must be prorated based upon program utilization

# MCSAP eligibility for equipment and other resources (cont'd)

- May need to be pro-rated if not specific to CMV only use
  - Crash Investigation Analysis Tools for CMVs (training, equipment, software)
  - Crash Reconstruction Analysis Tools for CMVs (training, equipment, software)
  - Enforcement/Inspection Tools/Equipment (e.g., chamber mates, creepers, etc.)

- If you are uncertain whether a particular cost is allowable, please contact your FMCSA Division Office.

- Remember, eligibility is first dependent upon the cost being **included in an approved project plan**.

# Next Steps

# Next Steps

- State/Local Jurisdiction Coordination
  - Identification of funding options and constraints
    - Motor Carrier Safety Assistance Program (MCSAP) Grants
    - High Priority (HP) Grants
    - LTCCFS Funding
- ICR for High-Level Requirement #3 (Knowledge of State Systems and Processes)
  - Will include information gathering on data collection process, training requirements, data collection and storage system tools, data quality reviews, and data integration.
  - The data collected will be used to inform all aspects of the LTCCFS study design and IT development.
- Data Needs and Research Questions
  - Identifying existing data sources (e.g., PCR, post-crash investigations, crash reconstructions) and creating a list of current data elements being captured
  - Matching data sources and elements back to our research questions
  - Identify our delta – additional data elements needed to support LTCCFS that are not collected currently anywhere – and preferred data source (e.g., on-scene vs. follow-up interview)
- Begin Development Stage – Efforts Focused on:
  - Study and sample design
  - Data collector training
  - Design of IT solution

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