



Safety and Operations Committee

Board Information Item III-B

May 12, 2022

**Voluntary Safety Reporting
Program – Path Forward**

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:
202361

Resolution:
☐ Yes ☒ No

TITLE:

Voluntary Safety Reporting Program Path Forward

PRESENTATION SUMMARY:

This presentation outlines the development of a robust Voluntary Safety Reporting Program, which is a cornerstone of Metro's strategy to develop and implement an industry-leading Safety Management System (SMS).

PURPOSE:

To keep Metro leadership informed and engaged on the strategy and progress associated with implementing Metro's SMS.

DESCRIPTION:

MITRE is a federally funded, non-profit that specializes in applying data sciences to advance safety in the transportation industry. MITRE has been commissioned to assist Metro with the development and implementation of its Voluntary Safety Reporting Program.

Key Highlights:

- Metro has become the first transit agency in the industry to establish a partnership with MITRE.
- Together, Metro and MITRE will advance safety culture, improve voluntary safety reporting, and enhance safety data analytics.
- A joint SMS Labor and Management Safety Committee will oversee the development and implementation of the Voluntary Safety Reporting Program.

Background and History:

In 2016, the Federal Transit Administration (FTA) published 49 CFR Part 670 Public Transportation Safety Program, which states "The FTA has adopted the principles and methods of Safety Management Systems (SMS) as the basis for enhancing the safety of public transportation in the United States."

(49 C.F.R. § 670.3). SMS is a comprehensive, collaborative approach that brings management and labor together to build on the transit industry's existing safety foundation to continuously improve how safety risks are identified and assessed with mitigating actions taken before an accident or incident occurs.

In July 2018, the FTA published 49 CFR Part 673 Public Transportation Agency Safety Plan. Transit operators that receive federal funds (under the FTA's Urbanized Area Formula Grants) are required to develop Agency Safety Plans (ASPs) that specify how SMS will be implemented over the course of a three-year period. Metro's ASP has been approved by the Executive Management Team (EMT), Board of Directors, Washington Metrorail Safety Commission (WMSC), and certified with the FTA.

Discussion:

Traditionally, safety programs have been reactive. This default approach reflects the belief that if the system operates without incident that equates to being safe. However, this can only last for a limited amount of time. Under the traditional approach, when an incident eventually does occur, the emphasis on safety is renewed, lessons learned are applied, and then it's back to business as usual or in other words, we are safe... until we are not. By contrast, the SMS approach emphasizes a shift from reactive to proactive. The foundation of making this shift relies on data in the form of inputs from the employees that are exposed to these safety risks. This data is analyzed to identify, assess, and mitigate safety risk proactively – ultimately driving action before incidents can occur.

A popular analogy compares this evolution in safety to the evolution of travel technology. Like an atlas, traditional safety programs were once invaluable and when followed properly, typically worked well. However, the latest GPS technologies can tell you if there are road hazards ahead, enabling you to choose an alternate route or adjust travel plans before you end up in a traffic jam or worse. The best GPS capabilities rely on reporting from actual drivers on the road to report on what is happening in real time to include recommendation for how to "re-calculate" in response. Similarly, SMS relies on inputs from all employees, especially the frontline workforce to understand the safety risks that exist and determine what actions should be taken before an incident occurs.

Metro has historically led the industry in Voluntary Safety Reporting. Metro is currently the only transit agency that has a Confidential Close Call Reporting System (C3RS) in place with the Bureau of Transportation Statistics (BTS). Additionally, Metro offers a variety of other voluntary reporting mechanisms through the phone (safety hotline), email, and online. The partnership with MITRE will capitalize on this foundation, integrate these reporting mechanisms and apply their leading-edge analytical capabilities to reveal

patterns and trends that were not previously visible. The results will feed our SMS Safety Risk Management process to continuously improve how Metro proactively identifies, assesses, and mitigates safety risks.

Ultimately, Voluntary Safety Reporting Programs are only effective if employees are willing to use them. The culture associated with traditional safety programs has been historically punitive. When incidents occur, the emphasis was often placed on looking for a rule that was broken and taking disciplinary action. Under traditional safety programs, if no rule could be found, a new rule might have been written so that it could be enforced in the future. This environment encouraged employees to simply keep their heads down and do their jobs. Conversely, SMS emphasizes building a safety culture that is based on Just Culture principles. In an SMS safety culture, distinctions are made among mistakes, at-risk behaviors that have become the norm, and intentional disregard for safety. The entire system is evaluated in an effort to understand how the environment became conducive to experiencing the undesired outcome. The resulting corrective and preventive actions focus on improving the system as a whole, which includes but is not limited to employee performance. When a mature, safety culture is in place, employees are encouraged to, and feel comfortable speaking up. Therefore, the number of reports received is often used as a metric to gauge safety culture maturity in an SMS.

In partnership with MITRE, Metro is prioritizing the completion of a safety culture assessment. The approach to this assessment includes focus groups, interviews, and a survey. The results will be used to establish Metro's safety culture baseline against MITRE's safety culture maturity model. This yardstick will formalize Metro's collective understanding of where the agency is in terms of safety culture maturity. Additionally, the assessment results will inform the employee engagement strategy that is being developed and implemented in parallel with the Voluntary Safety Reporting Program. The targeted outcome is the concurrent advancement of a matured safety culture along with an improved Voluntary Safety Reporting Program— positioning Metro to realize its vision of being the transit industry leader in safety.

FUNDING IMPACT:

Development and implementation of SMS has already been accounted for in the budget. This presentation is a report on the progress being made.	
Project Manager:	Theresa Impastato
Project Department/Office:	Department of Safety

TIMELINE:

Previous Actions	As documented in the Agency Safety Plan (ASP).
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Anticipated actions after presentation	Implementation of the Safety Management System throughout Metro is planned as a multi-year process. No change to the timeline is proposed. The Department of Operations groups are prioritized for baseline implementation.
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RECOMMENDATION:

Continue to support the development and implementation of Metro's SMS.

Metro Voluntary Safety Reporting Program *Path Forward*

Safety and Operations Committee
May 12, 2022



Voluntary Safety Reporting – Current State

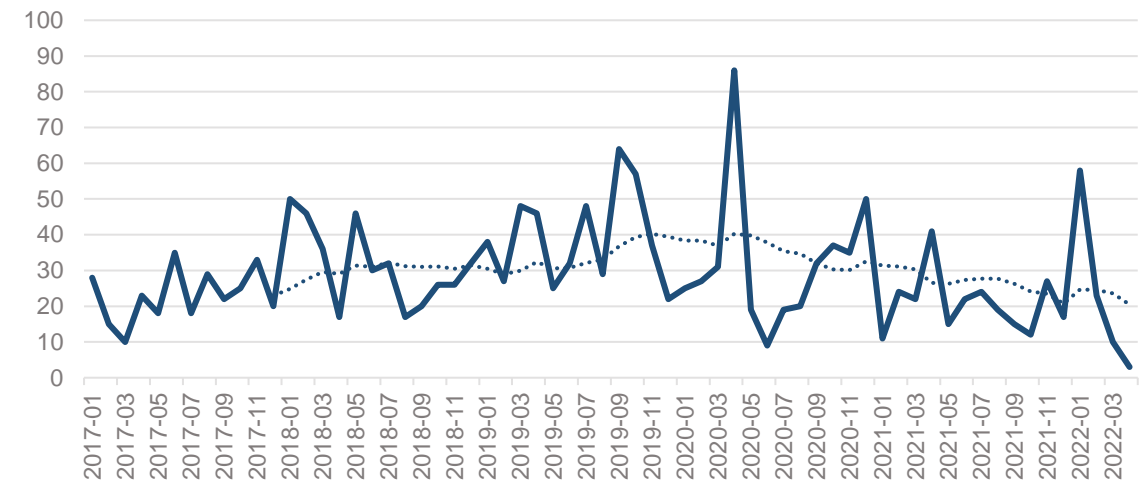
- Industry-leading Confidential Close Call Reporting System
- Safety Hotline – 202-249-SAFE
- Online – Metroweb homepage
- Email – SafetyHotline@wmata.com



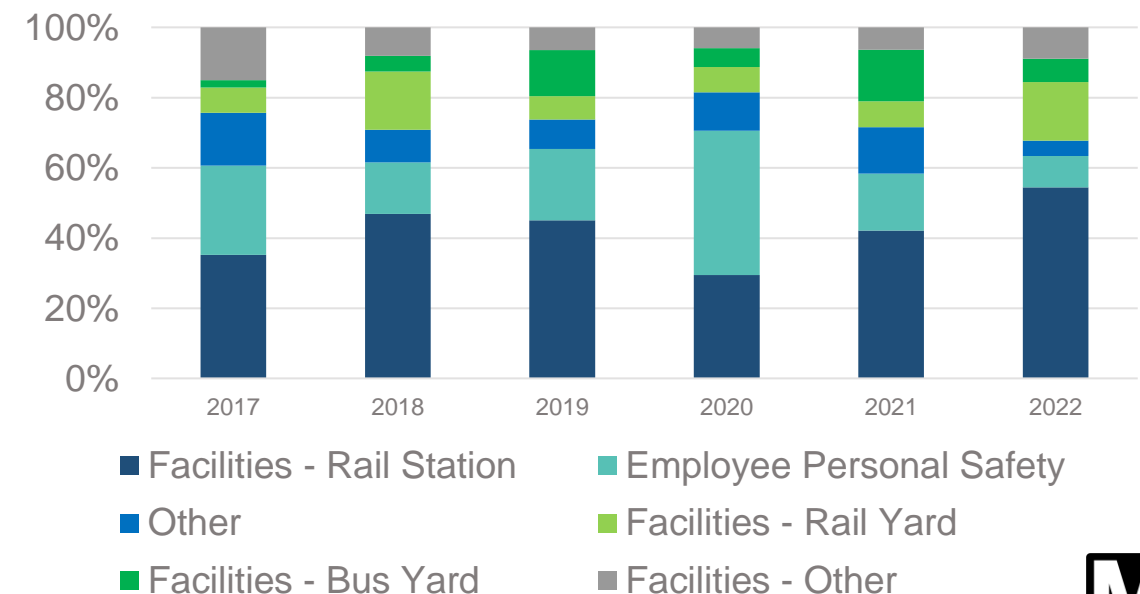
Current Hotline Trends

- Average 350 reports per year over the last five years
- Average time to close is improving over time, currently at 14 days
- Reporting trends around
 - Station conditions
 - Employee personal safety

Hotline Requests

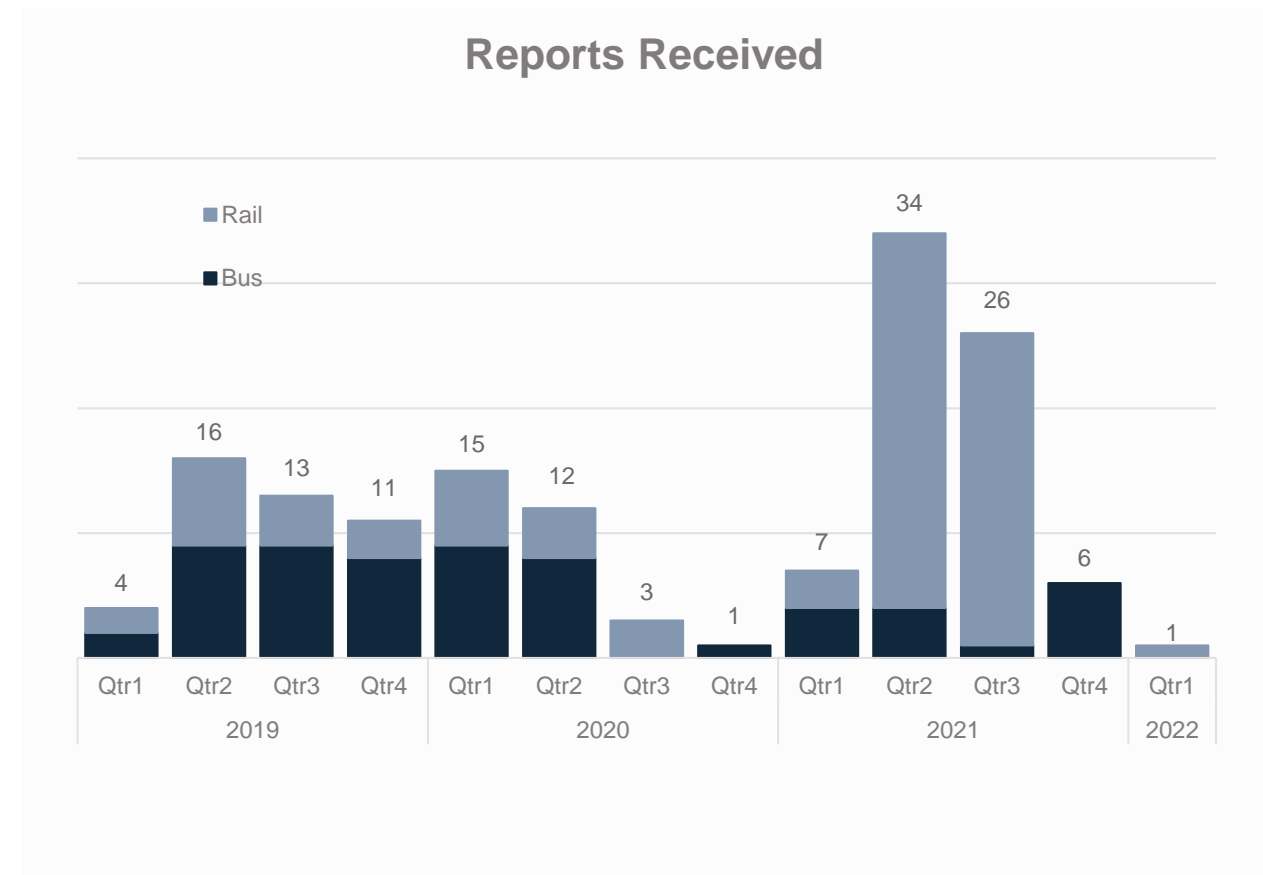


Top Incident Types



Confidential Close Call Reporting

- Average 3-4 reports/month
 - 83% of all reports received meet criteria for review
- Third-Party Data Broker manages the reporting process
- Reporting trends around
 - Roadway Worker Protection
 - Facility conditions
 - COVID-19 related concerns
 - Bus route conditions



CY2022

CY2023

CY2024

SMS Roadmap as of 1/1/2022

Safety Policy

Safety Risk Mgmt.

About MITRE:

- Not-for-profit, federally funded
- Developed Voluntary Safety Reporting Systems for the FAA, involved in Public Private Partnerships with the National Highway Traffic Safety Administration, Automakers, and the FAA/Airlines

MITRE

SOLVING PROBLEMS
FOR A SAFER WORLD



MITRE and Metro Announce Partnership to Strengthen Safety Management System

Procedures

process

Program

- Partner with SPPIM, CAPD, TI, PRMT and COO to launch implementation of Safety Certification CAP

- Develop Risk/Threat Analysis Program

- Expand Investigations Team Capacity to include Bus and MetroAccess

- Develop Operations Safety Oversight

- Establish Incident Management Framework

- Mature Mission Assurance Coordinator & Primary Responder Functions

- Develop and start implementation of Employee Safety Reporting Corrective Action Plan

- Partner with MITRE and IT to develop Safety Data Analytics Capability

- Complete overhaul of Employee Safety Reporting Program

- Expand safety data sharing across transit industry

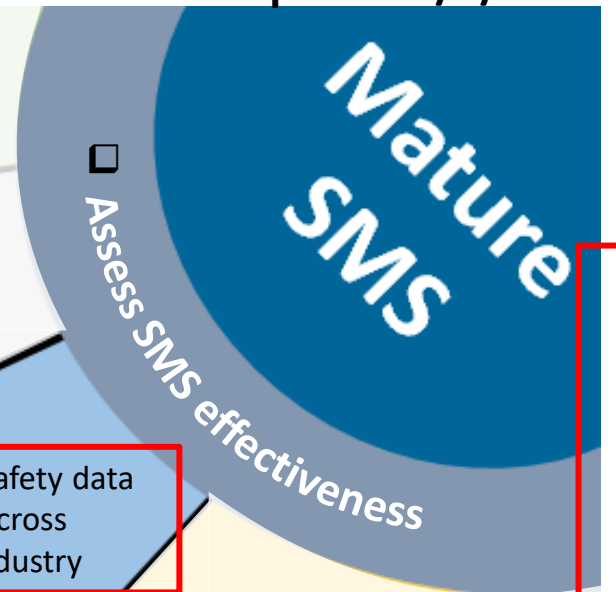
ment of polices
re principles

Safety Risk Management
station beyond Ops

- SMS training delivered to 95% of employees

- Measure progress against safety culture baseline
- Develop SMS training for employees and management
- Advance Employee Engagement Strategy to include SAFE Branding

- Partner with MITRE to conduct Safety Culture Assessment
- Develop SMS Comms, Training and Emp Engagement Strategy

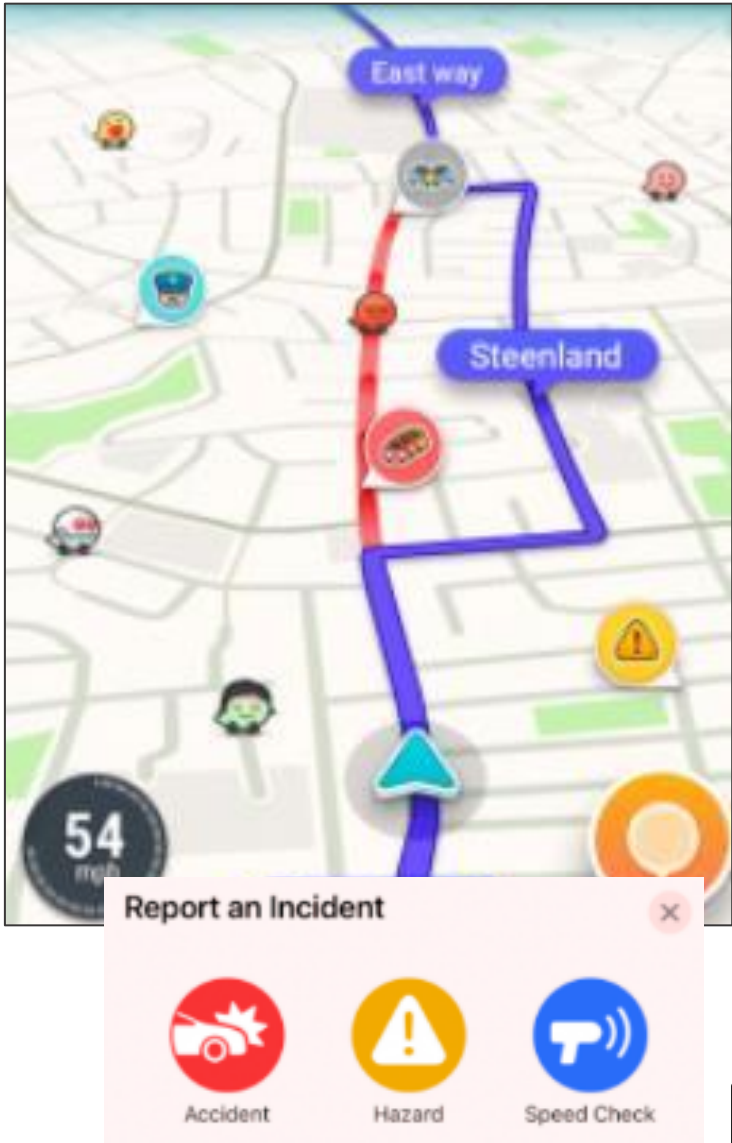
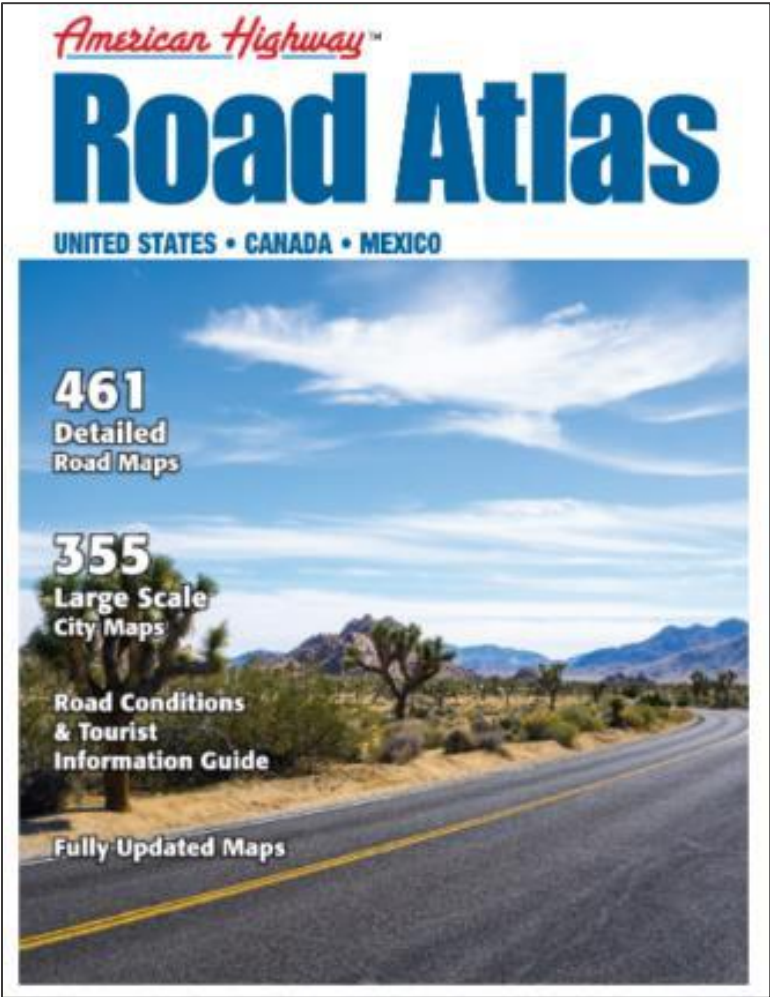


Proactive

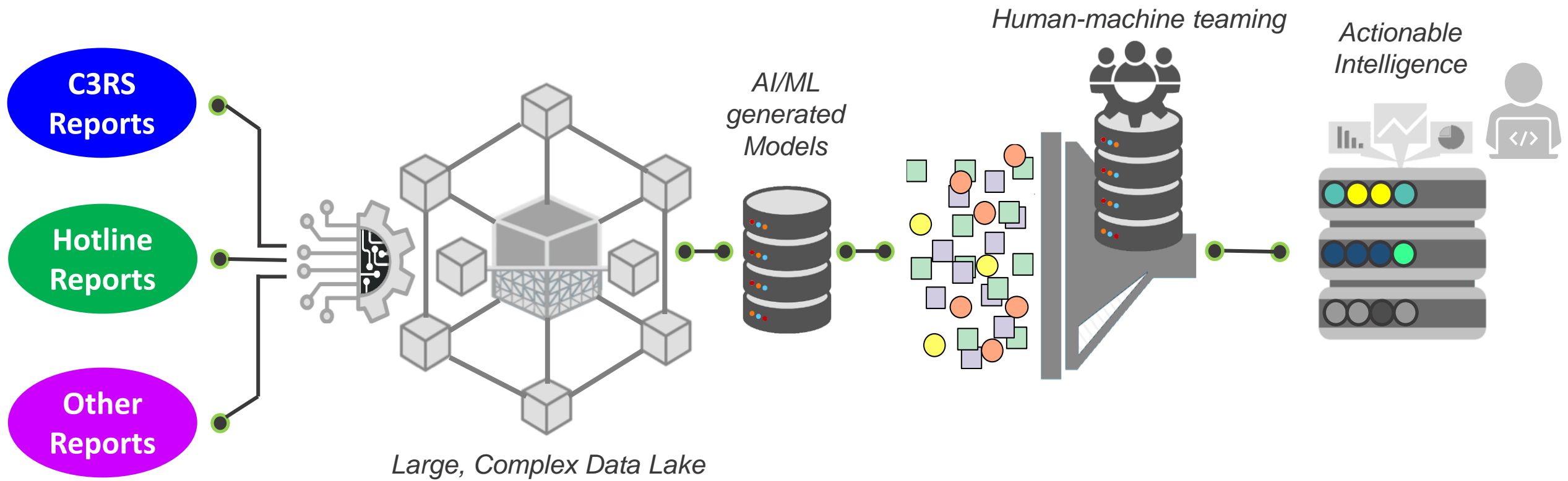
Reactive

Safety Assurance

Safety Promotion



Voluntary Safety Reporting Program



Safety Starts with People

A *positive safety culture*, is a prerequisite of an *effective* Voluntary Safety Reporting Program

Positive safety culture is...

“An **atmosphere of trust** in which people are encouraged (even rewarded), for providing essential, safety-related information...[and] they are also clear about where the **line must be drawn between acceptable and unacceptable behavior.**”

- James Reason, 1997

Safety Vision

- Promote new and existing behaviors and practices that represent a positive safety culture
- Proactively identify safety risks and concerns
- Pursue actions to identify and address safety issues and concerns
- Intervene earlier and proactively to mitigate safety risks

The approach



Interviews with Executives and Labor Leaders

- Describe desired culture
- Define vision and “must haves” for voluntary safety reporting program



Safety Culture Survey of Employees

- Identify enablers and barriers to a strong safety culture
- Create baseline for tracking progress over time



Focus Groups Across the Organization

- Dig deeper into survey results
- Solicit suggestions for strengthening the safety culture



Findings and Recommendations

- Identify cultural enablers and barriers
- Provide recommendations for strengthening the safety culture

The result



Path Forward



Task	Duration
<ul style="list-style-type: none">▪ Establish SMS Joint Labor and Management Committee▪ Union briefings and collaboration▪ Administration of committee sessions	<ul style="list-style-type: none">▪ Mar 2022 – Jul 2023
<ul style="list-style-type: none">▪ Develop and deploy Voluntary Safety Reporting Program, governance structure, tool, and user guides	<ul style="list-style-type: none">▪ Mar 2022 – Jul 2023
<ul style="list-style-type: none">▪ Develop and administer safety culture assessments, report on results, and perform action planning	<ul style="list-style-type: none">▪ Mar 2022 – Dec 2022